Smiths Group plc interim results for the half year ended 31 January 2019

London, Friday 22 March 2019

Delivering sustainable growth

	Headline[1]				Statutory		
	H1 2019 £m	H1 2018[2] £m	Reported growth	Underlying[3] growth	H1 2019 £m	H1 2018[2] £m	Reported growth
Revenue	1,573	1,542	+2%	+2%	1,573	1,542	+2%
Operating profit	246	248	(1)%	(2)%	213	230	(7)%
Operating margin	15.6%	16.1%	(50)bps	(70)bps	13.5%	14.9%	(140)bps
Pre-tax profit	216	218	(1)%		174	200	(13)%
Profit after tax	160	162	(1)%		121	105	+15%
Free cash-flow					71	113	(37)%
Return on capital employed	14.5%	15.2%	(70)bps				
Basic EPS	40.2p	40.7p	(1)%	(2)%	30.3p	26.3p	+15%
Dividend	14.1p	13.8p	2.2%				

Highlights

- **Delivering further good growth:**
  - Underlying revenue up 2% to £1,573m; up 3% excluding Smiths Medical. Reported revenue up 2% driven by good growth in John Crane, Flex-Tek and Smiths Interconnect.
- **Focused on operational excellence:**
  - Underlying headline operating profit down (2)%; up 2% excluding Smiths Medical. Reported headline operating profit down (1)%, with favourable foreign exchange translation.
  - The difference between headline and statutory operating are non-headline items as defined in note 3 to the accounts, of which the largest constituent is the Guaranteed Minimum Pensions ('GMP') equalisation.
- **Strong financial framework:**
  - Continued strong balance sheet, net debt to EBITDA 1.5x.
  - Cash conversion of 74%, temporarily impacted by inventory build for orders due for delivery in H2. Cash conversion is expected to be much stronger for the year overall.
- **Further value creative investment:**
  - Continued investment for sustainable growth with cash R&D at 5.1% of sales (H1 2018: 4.6%).
  - Further progress on portfolio optimisation:
    - Flex-Tek's acquisition of United Flexible for $345m completed in February 2019.
    - Sold two non-core Smiths Medical businesses for a combined consideration of c.£30m.
- **Plans announced for the separation of Smiths Medical, to create two stronger, industry-leading companies.**
- **FY2019 outlook reaffirmed.**

Andy Reynolds Smith, Group Chief Executive, commented:

"Smiths delivered another good performance in the first half with sustainable growth driven by John Crane, Flex-Tek and Smiths Interconnect. The strong results from these divisions were partly offset by the anticipated decline in Smiths Medical and the timing of deliveries in Smiths Detection, with both on track to deliver growth in the second half.

Today we have announced our plans for the separation of Smiths Medical to create two stronger companies each focusing on accelerating the execution of their plans and maximising the opportunities in their respective markets.

We reaffirm our outlook for 2019. We expect to continue to deliver sustainable underlying revenue growth of at least 2%, underpinned by current trading of our four industrial technology divisions and by the increasing contribution from new product launches in Smiths Medical."

Statutory reporting
Statutory reporting takes account of all items excluded from headline performance. On a statutory basis, pre-tax profit from continuing operations was £174m (H1 2018: £200m) and continuing basic earnings per share were 30.3p (H1 2018: 26.3p).

See accounting policies for an explanation of the presentation of results and note 3 to the financial statements for an analysis of non-headline items.

Definitions
The following definitions are applied throughout the document.
[1]Headline: In addition to statutory reporting, the Group reports its continuing operations on a headline basis. Definitions of headline metrics, and information about the adjustments to statutory measures are provided in note 3 to the financial statements.
[2] H1 2018 restated for IFRS 15.
[3] Underlying modifies headline performance to: adjust prior year to reflect an equivalent period of ownership for divested businesses; and exclude the effects of foreign exchange, acquisitions and supplemental sales for divested businesses.

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Presentation
The presentation slides and a live webcast of the analyst presentation will be available at https://smiths.com/investors/results-reports-and-presentations at 09.00 (UK time) today. A recording of the webcast will be made available from 13.00 (UK time).

Photography
Original high-resolution photography is available to the media from the media contacts above or from http://www.smiths-images.com/

Group results overview

£m	H1 2018	IFRS 15	**H1 2018 restated**	Foreign exchange	Acquisitions & disposals*	Underlying movement	**H1 2019**
Group revenue	1,549	(7)	**1,542**	21	(15)	25	**1,573**
Group headline operating profit	247	1	**248**	4	-	(6)	**246**

* Includes disposals and H1 2019 performance from acquisitions that do not have comparators for the prior year

H1 2019	Underlying revenue growth	Underlying operating profit growth	Operating margin
John Crane	+7%	+5%	21.7%
Smiths Medical	(3)%	(12)%	16.5%
Smiths Detection	(3)%	(9)%	15.2%
Flex-Tek	+6%	+3%	18.0%
Smiths Interconnect	+7%	+19%	11.9%
Group	+2%	(2)%	15.6%
Group excl. Smiths Medical	*+3%*	*+2%*	*15.3%*

Revenue

The Group delivered continued sustainable growth, with underlying revenue up 2% (+3% excluding Smiths Medical).

Reported revenue of £1,573m (H1 2018: £1,542m) was up 2% including £21m favourable foreign exchange translation and the £(15)m net impact of acquisitions and disposals. Good growth in John Crane, Flex-Tek and Smiths Interconnect was partially offset by the anticipated decline in Smiths Medical and the timing of deliveries in Smiths Detection.

Revenue from higher-growth regions, which represent 18% of Group sales, grew 10% on an underlying basis. This was driven by good revenue growth in India across the group, and in China driven by John Crane and Smiths Interconnect.

Operating profit

Reported headline operating profit of £246m (H1 2018: £248m) was down (1)% including £4m favourable foreign exchange translation. Underlying headline operating profit was down (2)%, (+2% excluding Smiths Medical). This was driven by good underlying growth in John Crane, Flex-Tek and Smiths Interconnect, offset by Smiths Medical and Smiths Detection. Central costs decreased by £2m on an underlying basis to £(28)m.

The difference between headline and statutory operating profit are non-headline items as defined in note 3 to the financial statements, of which the largest constituent is the GMP equalisation.

Operating margin

Headline operating margin decreased (50)bps to 15.6% on a reported basis driven by Smiths Medical margin which, as expected, was impacted by the continued disruption of the change in Notified Body service provider. Excluding Smiths Medical, headline operating margin improved 10bps, driven by the Group's improving growth trajectory.

Operational excellence

Driving operational excellence through the Smiths Excellence System remains a key focus for the Group. We continue to focus on improving speed and efficiency. Stock turns were 3.5x (H1 2018: 3.6x) and working capital as a percentage of sales was stable at 26% (H1 2018: 27%), despite a build up of inventory associated with orders for delivery in the second half. This represented an outflow of £(68)m (H1 2018: £(19)m outflow).

Cash generation

Cash conversion was 74% (H1 2018: 98%), impacted by inventory build associated with orders for delivery in H2 and the impact of the US government shutdown. Cash conversion is expected to be much stronger for the year overall. Headline operating cash-flow was £180m (H1 2018: £241m). Statutory net cash inflow from operating activities was £123m (H1 2018: £159m). Free cash-flow of £71m (H1 2018: £113m) decreased by 37% reflecting lower operating cash. See note 15 to the financial statements for a reconciliation of headline operating cash to statutory cash-flow measures.

R&D & capex

The Group's investment in R&D grew with cash costs of £80m or 5.1% of sales (H1 2018: 4.6% or £70m). R&D income statement costs increased to £69m (H1 2018: £67m) an increase of 3%. Our Vitality Index (which is an annually disclosed KPI) measures the effectiveness of organic investment, tracking the revenue from new products launched in the past three years. Our Vitality Index is currently at 13% with the ambition to reach ~20% in the medium term.

Net capex at £(54)m (H1 2018: £(46)m) represented 1.2x depreciation and amortisation (H1 2018: 0.9x). The increase was driven by investment in John Crane to support growth.

Portfolio

We actively manage our portfolio of businesses and review all options to enhance our leadership positions and maximise value for shareholders.

We made further progress on portfolio optimisation through organic and inorganic investment; approximately 80% of the Group is well positioned in attractive markets.

During the period, Smiths Medical completed the disposal of two non-core businesses for a total consideration of c.£30m.

In February 2019, Flex-Tek completed the acquisition of United Flexible for an enterprise value of $345m. This acquisition strengthens Flex-Tek's positions in aerospace and industrial end markets globally. The initial stages of the integration are progressing well.

For more information, please read notes 12 and 13 of the financial statements.

It is announced separately today that the Board intends to pursue a demerger of Smiths Medical and list it in the UK. The demerger of Smiths Medical will create two stronger, industry-leading companies with distinct strategies and focus. This will enable Smiths to concentrate on growing as a leading industrial technology group, united by shared business characteristics and a common operating model; and focus Smiths Medical on delivering its full potential, capitalising on its leading positions, large programme of new product launches and value creating opportunities in its rapidly changing market. Smiths aims to complete the demerger during the first half of CY2020, conditional on the approval of Smiths' shareholders. The Board of Smiths will continue to evaluate all opportunities for value maximisation as the process goes forward, with the overriding objective of continuing to strengthen both Smiths Medical and Smiths in the interests of enhancing and delivering shareholder value.

ROCE

ROCE declined (70)bps to 14.5% (H1 2018: 15.2%). The ROCE movement reflects the reduction in Smiths Medical's profitability.

Non-headline items relating to continuing activities excluded from headline profit before tax

These items amounted to a charge of £(33)m compared to a charge of £(18)m in H1 2018. The movement is driven by the impact of GMP equalisation of £(29)m, partially offset by profit on disposal of businesses as well as lower integration costs. Please refer to note 3 of the financial statements for further details.

Finance costs

Headline finance costs of £(30)m (H1 2018: £(30)m) were in line with last year. Statutory finance costs were £(39)m (H1 2018: £(30)m) with the £(9)m increase due to financial instrument fair value movements where hedge accounting is not possible, which it is the Group's practice to recognise as non-headline.

Taxation

The headline tax charge for the half of £(56)m (H1 2018: £(56)m) represents an effective rate of 26.0% (H1 2018: 25.8%), which includes a one-off cost as a result of restructuring in response to global tariff changes.

Debt

Net debt at 31 January 2019 was £938m, an increase of £45m in the period. Net debt to EBITDA was broadly unchanged at 1.5x (FY2018: 1.4x). Including the acquisition of United Flexible, the pro-forma net debt to EBITDA would have been 1.8x. Gross debt was £1,418m (FY2018: £1,610m) and cash reserves were £480m (FY2018: £717m). Of the gross debt, £nil falls due within one year. Our strong balance sheet continues to allow us to deploy significant further investment capacity to support sustainable growth.

Pension

The net accounting pension position has reduced to a surplus of £252m (FY2018: £381m) driven by actuarial losses arising from the application of a lower discount rate. The Group continues to work with the Trustees to de-risk the pension schemes.

The Group has agreed to continue funding these schemes with contributions for the half of £15m (H1 2018: £30m). For the year, we expect total cash contributions of up to £40m across all schemes (FY2018: £49m).

GMP is a portion of pension that was accrued by individuals who were contracted out of the State Second Pension prior to 6 April 1997. Historically there was an inequality of benefits between male and female members who have GMP, which is not specific to Smiths. A total £(29)m past service cost (H1 2018: £nil) was recognised in the current period as a non-headline item following the UK High Court ruling that GMP equalisation is required for all such UK schemes.

Dividend

The Board has a progressive dividend policy, aiming to increase dividends in line with long-term underlying growth in earnings and cash-flow. This policy enables us to retain sufficient cash-flow to finance investment in the drivers of growth and meet our financial obligations. In setting the level of dividend payments, the Board takes into account prevailing economic conditions and future investment plans, along with the objective to maintain minimum dividend cover of around 2.0x.

The Board has declared an interim dividend of 14.1p per share, up 2.2%. The interim dividend will be paid on 26 April 2019 to shareholders on the register at close of business on 5 April 2019.

Statutory results

On a statutory basis, after taking into account all items excluded from headline performance, operating profit of £213m was £(17)m lower than last year (H1 2018: £230m), reflecting a net increase in non-headline items as explained in note 3 to the financial statements. Statutory profit after tax increased by 15% to £121m (H1 2018: £105m) as H1 2018 was impacted by non-headline tax items following the 2018 US tax legislation. Statutory basic EPS was also up 15% to 30.3p (H1 2018: 26.3p).

Foreign exchange

With over 95% of our revenue outside the UK, we are exposed to foreign exchange movements, mainly the USD and the EUR. For each $0.10 move, the annual operating profit impact is c.£20m. For each €0.10 move, the annual operating profit impact is c.£10m. Foreign exchange rates will provide a tailwind to reported headline revenue and operating profit, if current rates prevail.

The results of overseas operations are translated into sterling at average exchange rates. The net assets are translated at period-end rates. The principal exchange rates, expressed in terms of the value of sterling, are shown in the following table.

	31 January 2019	31 January 2018	31 July 2018	H2 2018
Average rates:				
USD	1.29	1.33	1.35	1.36
EUR	1.12	1.12	1.13	1.14
Period-end rates:				
USD	1.31	1.42	1.31	
EUR	1.15	1.14	1.12	

IFRS 15 - revenue from contracts with customers

A number of new accounting standards and amendments to standards and interpretations have been issued. These include IFRS 15 which impacts the timing of and the disclosures for recognising revenue from contracts with customers. In H1 2019, we restated our prior numbers. Reported H1 2018 revenue decreased by £(7)m, while operating profit and reported net assets both increased by £1m. The impact on the reported results for FY2018 is a £(16)m reduction in revenue and no impact on operating profit or net assets.

Outlook

The outlook for FY2019 is reaffirmed. The Group is expected to deliver sustained underlying revenue growth of at least 2%. In Smiths Medical, regulatory and contract challenges are abating – and we anticipate revenue returning to growth in the second half. In Smiths Detection, we anticipate good second half growth driven by continued demand in Air Transportation and Ports & Borders. The other divisions are all expected to continue to deliver growth, albeit against tougher H2 comparators. We remain focused on operational excellence and will maintain our track record of strong cash conversion.

Over the medium-term, we remain confident that we can grow faster than our markets. This is driven by our strategy to focus the portfolio for growth and deliver world-class competitiveness, underpinned by our strong financial framework. In parallel with continued active portfolio management, the Board remain confident that this will drive long-term sustainable growth and attractive returns.

Business review

John Crane

John Crane is a leading provider of mission-critical engineered solutions for global energy and process industries. 68% of revenue comes from aftermarket sales; c.56% of revenue is derived from the energy sector (downstream and midstream Oil & Gas) and c.44% comes from other process industries (including chemical, pharmaceutical, power generation, mining, water treatment, and pulp & paper). John Crane represents 29% of Group revenue.

	H1 2019 £m	H1 2018 £m	Reported growth	Underlying growth
Revenue	449	428	+5%	**+7%**
Headline operating profit	97	91	+7%	**+5%**
Headline operating margin	21.7%	21.3%	+40bps	
Statutory operating profit	94	86	+9%	
Return on capital employed	23.0%	23.4%	(40)bps	

Performance

John Crane delivered a continued good performance, with revenue up 7% on an underlying basis. Reported revenue was up 5%, including £(1)m unfavourable foreign exchange translation and £(7)m net impact from the disposal of the Bearings business and the acquisition of Seebach GmbH in the prior year.

Underlying revenue from John Crane's Oil & Gas and Non-Oil & Gas activities were up c.9% and c.4% respectively, reflecting the improved trend in global energy markets and continued growth in John Crane's chemical, pharma, mining and pulp & paper activities. These market conditions were also reflected in improved underlying sales of Original Equipment ('OE'), which were up 7%. Investment in OE projects and the expansion of the installed base continued during the period. Multiple new project agreements were secured, including Oil & Gas expansion projects in the Middle East and Spain, an oil field development project in Brazil, as well as new petrochemical, power, pulp and paper, and chemical contracts across all regions. John Crane's large installed base and leading service offering positions it well to satisfy strong aftermarket demand for repairs, maintenance and upgrades; underlying aftermarket revenue grew 8% during the period.

Headline operating profit of £97m increased 5% on an underlying basis, driven by improved volumes. Headline operating profit margin was 21.7%, up 40bps, with the disposal of a lower margin business and the positive impact of volume growth held back by the costs of restarting capacity. The difference between statutory and headline operating profit includes the net cost recovery in relation to the provision for John Crane, Inc. asbestos litigation.

ROCE was down (40)bps at 23.0% driven by the impact of the acquisition, partially offset by increased profitability.

Cash R&D expenditure during the period increased by 47% or £(3)m to 1.9% of sales (H1 2018: 1.4%). John Crane's innovation is primarily focused on using materials science advancements to enhance seal performance and efficiency, as well as leveraging the Group's digital expertise to support the development of predictive diagnostic platforms and other innovative digital technologies.

Smiths Medical

Smiths Medical supplies high-quality, cost effective medical devices and consumables that are vital to patient care globally. Our portfolio incorporates established brands, with strong positions in select segments of the Infusion Systems, Vascular Access, and Vital Care markets. 83% of Smiths Medical's sales are from consumable and disposable products. Smiths Medical represents 27% of Group revenue.

	H1 2019 £m	H1 2018 £m	Reported growth	Underlying growth
Revenue	430	443	(3)%	**(3)%**
Headline operating profit	71	82	(13)%	**(12)%**
Headline operating margin	16.5%	18.4%	(190)bps	
Statutory operating profit	86	79	+9%	
Return on capital employed	11.9%	15.8%	(390)bps	

Performance

Smiths Medical underlying revenue was down (3)%. As expected, revenue in the first half was impacted by the previously announced transition to a new Notified Body in Europe, which is now abating. Reported revenue also fell (3)% with £7m favourable foreign exchange translation offset by the £(8)m impact of the divestments.

The anticipated costs associated with the Notified Body transition and implementation of the new EU Medical Device Regulation in 2020 remain unchanged at £10-15m in each of FY2019 and FY2020.

Underlying revenue was flat in Infusion Systems driven by strong hardware sales, offset by softer consumables. Vascular Access underlying revenue declined by (7)% as a result of Notified Body transition, as well as declines in peripheral intravenous catheters ('PIVC'). Underlying revenue from Vital Care and Specialty Products was down (1)%, with decline in temperature management products offset by strong growth in the chronic obstructive pulmonary disease ('COPD') product line which is now being sold directly.

Headline operating profit declined (12)% on an underlying basis driven by lower sales and related lower fixed cost absorption. As a result, headline operating margin was (190)bps lower than the prior year at 16.5%. The difference between statutory and headline operating profit included £17m profit on disposals.

ROCE decreased (390)bps to 11.9%, reflecting lower profitability.

During the period, Smiths Medical completed the disposal of two non-core businesses for a total consideration of c.£30m.

Cash R&D expenditure was 5.8% of sales (H1 2018: 6.1%). Smiths Medical continues to invest in the development of innovative, commercially focused products across the portfolio to support long-term, sustainable growth. In the last 18 months, 29 products have been launched, including 7 in H1 2019, with a further 10 expected in H2 2019. Products that have already launched this year include:

- Two enhancements to CADD™ ambulatory pumps for homecare and alternate sites.
- NRFit™ a neuraxial connection system enhancing patient safety.
- A quieter and simpler next generation convective warmer.

Sales from new products launched over the course of the last 18 months are ramping up, contributing to the division's anticipated return to growth in the second half of the year.

Smiths Detection

Smiths Detection is a global leader in the detection and identification of security threats and contraband. It produces equipment for customers in the Air Transportation, Ports & Borders, Defence and Urban Security end-use markets. 50% of Smiths Detection's sales are derived from the aftermarket. Smiths Detection represents 23% of Group revenue.

	H1 2019 £m	H1 2018 £m	Reported growth	Underlying growth
Revenue	361	367	(2)%	**(3)%**
Headline operating profit	55	59	(8)%	**(9)%**
Headline operating margin	15.2%	16.2%	(100)bps	
Statutory operating profit	43	39	+10%	
Return on capital employed	11.8%	10.6%	+120bps	

Performance

Smiths Detection's underlying revenue decreased by (3)%, affected by anticipated programme phasing. Aftermarket revenue was flat on an underlying basis and now accounts for 50% of the division's revenue (H1 2018: 48%). On a reported basis, revenue decreased by (2)% with £6m favourable impact from foreign exchange translation.

Revenue in Air Transportation decreased (7)% on an underlying basis against a strong prior year comparator and reflecting the anticipated phasing of orders which are due for delivery in the second half. Air Transportation is Smiths Detection's largest segment and now represents 63% of total revenue. Contract wins included: the first orders for our new Computed Tomography (CT)-based checkpoint systems for Jeju in South Korea, Israel Airports Authority and the Northern Territories in Australia, as well as hold baggage equipment for air freight parcel sorting facilities in Europe.

Revenue from other markets grew 3%. Ports & Borders revenue increased by £10m or 32% on an underlying basis and the order book for the second half is very strong, reflecting the positive impact of re-focusing on this segment. Significant contract wins during the period included orders from the Middle East and Africa. Underlying revenue in Defence was broadly flat, reflecting the ongoing wind-down of some major US military programmes. Urban Security revenues decreased by £6m or (8)% on an underlying basis, driven by the completion of the RadSeeker programme for the US Domestic Nuclear Detection Office.

The division's strong order book, with deliveries scheduled for the second half of the year, and further strong demand in Air Transportation and Ports & Borders support our confidence in delivering good growth in the second half.

Headline operating profit decreased (9)% on an underlying basis, reflecting the lower volumes, product and geographical mix, and continued pricing pressure. Headline reported operating margin decreased by (100)bps to 15.2%. The difference between statutory and headline operating profit primarily reflects integration costs associated with the acquisition of Morpho and amortisation of acquired intangibles.

ROCE increased 120bps to 11.8% benefitting from the rolling annual calculation, which included a strong H2 2018.

Cash R&D expenditure during the period was 8.8% of sales, or 6.8% excluding customer funded R&D (H1 2018: 6.6% and 6.0% respectively). We continue to invest in the development of the next generation of chemical warfare agent detection devices for the defence market; new algorithms, which improve the detection of dangerous goods for cargo applications; and digital solutions to strengthen our aftermarket proposition. During the half, CTiX, our CT checkpoint scanner gained EDS CB C3 certification, the highest standard from ECAC, the European regulator.

Flex-Tek

Flex-Tek provides innovative components to heat and move fluid and gases for the aerospace, medical, industrial, construction and domestic appliance markets. Flex-Tek represents 12% of Group revenue.

	H1 2019 £m	H1 2018 £m	Reported growth	Underlying growth
Revenue	184	168	+9%	**+6%**
Headline operating profit	33	31	+6%	**+3%**
Headline operating margin	18.0%	18.6%	(60)bps	
Statutory operating profit	32	39	(18)%	
Return on capital employed	33.3%	36.4%	(310)bps	

Performance

Flex-Tek delivered a continued good performance with revenue up 6% on an underlying basis, driven by innovation led growth in the Construction and Heat Solutions segments. On a reported basis, revenue increased 9% including £6m favourable foreign exchange translation.

Construction revenue grew 9% on an underlying basis, with both Gastite and Thermaflex products benefiting from growth in US housing construction. Fluid Management revenue was up 3% on an underlying basis, driven by growth in new engine and airframe platforms. Heat Solutions revenue increased by 13% on an underlying basis, principally due to growth in products for heating, ventilation and air conditioning applications, as well as process heating solutions. Flexible Technologies underlying revenue decline of (2)% was driven by inventory reduction for medical hoses by one particular customer.

On an underlying basis headline operating profit increased 3% to £33m, driven by good revenue growth partially offset by a £(3)m one-off cost relating to a facility in Asia. Headline operating margin was (60)bps below last year at 18.0%. The difference between statutory and headline operating profit is primarily due to a reduction in the provision for Titeflex Corporation for subrogation claims and acquisition costs.

In February 2019, Flex-Tek completed the acquisition of United Flexible for an enterprise value of $345m. This acquisition strengthens Flex-Tek's positions in aerospace and industrial end markets globally. The initial stages of the integration are progressing well.

ROCE decreased (310)bps to 33.3%, driven by the acquisition of Osram's heating element business in the prior year.

Cash R&D expenditure remained consistent at 0.7% of sales (H1 2018: 0.6%), focused on market-leading innovative solutions to meet specific customer needs. Products launched in H1 included:

- Gastite's FlashShield +, the next generation of flexible gas piping.
- Thermaflex floating core duct.
- Flexible heating elements in Heat Solutions.

Smiths Interconnect

Smiths Interconnect designs solutions for high-speed, secure connectivity in demanding applications for the defence, semiconductor test, medical, space, commercial aerospace, and rail markets. Smiths Interconnect represents 9% of Group revenue.

	H1 2019 £m	H1 2018 £m	Reported growth	Underlying growth
Revenue	149	136	+9%	**+7%**
Headline operating profit	18	15	+23%	**+19%**
Headline operating margin	11.9%	10.6%	+130bps	
Statutory operating profit	17	12	+42%	
Return on capital employed	12.9%	11.4%	+150bps	

Performance

Smiths Interconnect delivered good growth with underlying revenue up 7%, reflecting strong growth in key end markets, as well as favourable phasing. On a reported basis, revenue increased by 9% including £3m of favourable foreign exchange translation.

Good underlying revenue growth was driven by strong Semiconductor revenue as a result of customer order timings, and strong growth in Defence with connector sales associated with the Saab JAS 39 Gripen and Joint Strike Fighter programmes in the US and Europe. Aerospace was impacted by the non-repeat of some large programmes in the US.

Headline operating profit increased 19% on an underlying basis to £18m, driven by sales growth as well as procurement and restructuring savings. As a result, headline operating margin of 11.9% increased by 130bps. The difference between statutory and headline operating profit primarily reflects adjustments for amortisation of acquired intangibles.

ROCE increased 150bps to 12.9%, driven by increased profitability as well as the disposal of businesses.

Cash R&D expenditure was 7.4% of revenue (H1 2018: 7.7%) (6.4% excluding customer funded R&D, H1 2018: 6.8%). Product launches in the half included:

- Attenuators reducing signal power to ensure performance for defence applications.
- High speed cable assemblies for radar, satellite and test applications.
- Passive waveguides qualified for next generation space applications.
- Connectors qualified to the specification of the European Space Agency.

Other financial matters

Risk management
The principal risks and uncertainties affecting the business activities of the Group and relevant mitigating activities were set out on pages 50-59 of the Annual Report for the year ended 31 July 2018, a copy of which is available at the Company's website at www.smiths.com.

Developments since the Annual Report
In the view of the Board, the principal risks and uncertainties affecting the Group for the remaining six months of the financial year continue to be those set out briefly below and more fully in the Annual Report.

Technology
Differentiated new products and services are critical to our success. Failure to maintain technological differentiation could lead to a loss of market share and competitive advantage.

People
People are our only truly sustainable source of competitive advantage. The inability to attract key talent could lead to a loss of competitive advantage and materially affect our growth prospects.

Product quality
Manufacturing flaws, component failures and / or design defects could require us to recall products. The Group, in particular, Smiths Detection and Smiths Medical may be exposed to losses in the event of a cyber security breach relating to the Group's products.

Cyber security
Cyber attacks could compromise the confidentiality, integrity and availability of our assets, impacting our ability to deliver to customers and ultimately, financial performance and reputation.

Economy and geopolitics
Economic and financial market conditions may cause adverse effects on customers or suppliers with consequential capacity or cash-flow implications for Smiths Group.

Not operating in the right markets
Failure to select the right markets and geographies could impact our strategic progress and financial performance.

Ethics and compliance
We operate in highly regulated markets, as well as in countries where the risks of bribery, corruption and modern slavery are high, creating a risk that a significant ethical or compliance breach may occur which could seriously harm our reputation and impact our financial performance, customer relationships and ability to retain talent.

Failure to meet contractual obligations
There is a risk that we may fail to deliver, in a timely fashion, or at all, the products and services we are required to deliver, or fail in our contractual execution due to delays by our suppliers or counterparties.

Acquisitions and integration
Failure to identify suitable acquisition targets or successfully integrate newly-acquired businesses may result in less value generation, fewer synergies or require more investment than anticipated, impacting the Group's financial performance.

Supply chain – manufacturing
Our manufacturing continues to be exposed to risk of a number of external events such as natural catastrophes, disease pandemics and terrorist attacks which may result in supply disruption.

Supply chain – sole source
We rely on sole source component suppliers to provide raw materials or purchased components for some of our products. Any failure on their part or unforeseen adverse consequences in the region or market where they operate would impact our ability to deliver solutions to customers and drive growth.

Statement of directors' responsibilities

The interim results are the responsibility of, and have been approved by, the directors. The directors are responsible for preparing the interim results in accordance with the Disclosure Guidance and Transparency Rules ("DTR") of the United Kingdom's Financial Conduct Authority ("FCA"). The DTR require that the accounting policies and presentation applied to the half-yearly figures are consistent with those applied in the latest published annual accounts, except where the accounting policies and presentation are to be changed in the subsequent annual accounts, in which case the new accounting policies and presentation should be followed, and the changes and the reasons for the changes should be disclosed in the interim results, unless the FCA agrees otherwise.

The directors confirm that these condensed interim financial statements have been prepared in accordance with International Accounting Standard 34, 'Interim Financial Reporting' as adopted by the European Union, and that the interim management report herein includes a fair review of:

- the important events that have occurred during the first six months of the financial year and their impact on the condensed set of financial statements as required by DTR 4.2.7;
- the principal risks and uncertainties for the remaining six months of the year as required by DTR 4.2.7; and
- the related party transactions that have taken place in the first six months of the current financial year that have materially affected, and changes in the related party transactions described in the previous annual report that could have materially affected, the financial position or performance of Smiths Group plc (the "Parent Company") and its subsidiaries (together, the "Group") during the first six months of the current financial year as required by DTR 4.2.8.

Having reassessed the principal risks, the directors consider it appropriate to adopt the going concern basis of accounting in preparing the interim results.

The directors of the Parent Company are listed in the Parent Company's Annual Report for the year ended 31 July 2018, except for Sir Kevin Tebbit who retired from the Board at the Annual General Meeting held on 14 November 2018.

For and on behalf of the Board of directors:

Andy Reynolds Smith
Chief Executive

John Shipsey
Chief Financial Officer

21 March 2019

Independent review report to Smiths Group plc

Report on the condensed interim financial statements

Our conclusion

We have reviewed Smiths Group plc's condensed interim financial statements (the "interim financial statements") in the Interim results 2019 of Smiths Group plc for the 6 month period ended 31 January 2019. Based on our review, nothing has come to our attention that causes us to believe that the interim financial statements are not prepared, in all material respects, in accordance with International Accounting Standard 34, 'Interim Financial Reporting', as adopted by the European Union and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

What we have reviewed

The interim financial statements comprise:

- the consolidated balance sheet (unaudited) as at 31 January 2019;
- the consolidated income statement (unaudited) and consolidated statement of comprehensive income (unaudited) for the period then ended;
- the consolidated cash-flow statement (unaudited) for the period then ended;
- the consolidated statement of changes in equity (unaudited) for the period then ended; and
- the explanatory notes to the interim financial statements.

The interim financial statements included in the Interim results 2019 have been prepared in accordance with International Accounting Standard 34, 'Interim Financial Reporting', as adopted by the European Union and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

As disclosed in note 1 to the interim financial statements, the financial reporting framework that has been applied in the preparation of the full annual financial statements of the Group is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

Responsibilities for the interim financial statements and the review

Our responsibilities and those of the directors

The Interim results 2019, including the interim financial statements, are the responsibility of, and have been approved by, the directors. The directors are responsible for preparing the Interim results 2019 in accordance with the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

Our responsibility is to express a conclusion on the interim financial statements in the Interim results 2019 based on our review. This report, including the conclusion, has been prepared for and only for the company for the purpose of complying with the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority and for no other purpose. We do not, in giving this conclusion, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

What a review of interim financial statements involves

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410, 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the Auditing Practices Board for use in the United Kingdom. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures.

A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and, consequently, does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

We have read the other information contained in the Interim results 2019 and considered whether it contains any apparent misstatements or material inconsistencies with the information in the interim financial statements.

PricewaterhouseCoopers LLP
Chartered Accountants
London

21 March 2019

(a) The maintenance and integrity of the Smiths Group plc website is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the interim financial statements since they were initially presented on the website.

(b) Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Consolidated income statement (unaudited)

	Notes	Period ended 31 January 2019 Headline £m	Period ended 31 January 2019 Non-headline (note 3) £m	Period ended 31 January 2019 Total £m	Period ended 31 January 2018 Headline Restated* £m	Period ended 31 January 2018 Non-headline (note 3) £m	Period ended 31 January 2018 Total Restated* £m
Continuing operations							
Revenue	2	1,573		1,573	1,542		1,542
Cost of sales		(856)		(856)	(830)		(830)
Gross profit		717		717	712		712
Sales and distribution costs		(219)		(219)	(219)		(219)
Administrative expenses		(252)	(50)	(302)	(245)	(17)	(262)
Profit/(loss) on business disposal			17	17		(1)	(1)
Operating profit/(loss)		**246**	**(33)**	**213**	**248**	**(18)**	**230**
Interest receivable		4		4	3		3
Interest payable		(34)		(34)	(33)		(33)
Other financing losses			(15)	(15)		(3)	(3)
Other finance income – retirement benefits			6	6		3	3
Finance costs		(30)	(9)	(39)	(30)		(30)
Profit/(loss) before taxation		**216**	**(42)**	**174**	**218**	**(18)**	**200**
Taxation	5	(56)	3	(53)	(56)	(39)	(95)
Profit/(loss) for the period		**160**	**(39)**	**121**	**162**	**(57)**	**105**
Attributable to:							
Smiths Group shareholders – continuing operations		159	(39)	120	161	(57)	104
Non-controlling interests in respect of continuing operations		1		1	1		1
		160	**(39)**	**121**	**162**	**(57)**	**105**
Earnings per share	4						
Basic				30.3p			26.3p
Diluted				29.9p			25.9p
Dividends per share (declared)	14			**14.1p**			**13.8p**

* Results for the period ended 31 January 2018 have been restated to reflect the adoption of IFRS 15. See note 1.

Consolidated statement of comprehensive income (unaudited)

	Notes	Period ended 31 January 2019 £m	Period ended 31 January 2018 Restated* £m
Profit for the period		**121**	**105**
Other comprehensive income:			
Actuarial losses on retirement benefits	6	(117)	(24)
Taxation recognised on actuarial movements		20	(4)
Other comprehensive income and expenditure which will not be reclassified to the consolidated income statement		**(97)**	**(28)**
Other comprehensive income which will be, or has been, reclassified:			
Exchange losses		(14)	(179)
Fair value gains/(losses) and reclassification adjustments:			
– deferred in the period on cash-flow and net investment hedges		7	90
– reclassified to income statement on cash-flow and net investment hedges		(1)	(1)
Total other comprehensive expenditure		**(105)**	**(118)**
Total comprehensive income/(expenditure)		**16**	**(13)**
Attributable to:			
Smiths Group shareholders		15	(13)
Non-controlling interests		1	
		16	**(13)**

* Results for the period ended 31 January 2018 have been restated to reflect the adoption of IFRS 15. See note 1.

Consolidated balance sheet (unaudited)

	Notes	31 January 2019 £m	31 July 2018 £m
Non-current assets			
Intangible assets	7	2,028	2,061
Property, plant and equipment	8	324	320
Financial assets – other investments		18	18
Retirement benefit assets	6	396	526
Deferred tax assets		196	180
Trade and other receivables		58	57
Financial derivatives		45	50
		3,065	**3,212**
Current assets			
Inventories		513	466
Current tax receivable		28	38
Trade and other receivables		728	733
Cash and cash equivalents	9	480	717
Financial derivatives		6	7
		1,755	**1,961**
Total assets		**4,820**	**5,173**
Current liabilities			
Financial liabilities			
– borrowings	9	(18)	(203)
– financial derivatives		(6)	(4)
Provisions for liabilities and charges	11	(70)	(76)
Trade and other payables		(589)	(606)
Current tax payable		(61)	(72)
		(744)	**(961)**
Non-current liabilities			
Financial liabilities			
– borrowings	9	(1,400)	(1,407)
– financial derivatives		(4)	(6)
Provisions for liabilities and charges	11	(255)	(262)
Retirement benefit obligations	6	(144)	(145)
Deferred tax liabilities		(77)	(77)
Trade and other payables		(27)	(27)
		(1,907)	**(1,924)**
Total liabilities		**(2,651)**	**(2,885)**
Net assets		**2,169**	**2,288**
Shareholders' equity			
Share capital		148	148
Share premium account		360	358
Capital redemption reserve		6	6
Revaluation reserve		1	1
Merger reserve		235	235
Retained earnings		1,698	1,826
Hedge reserve		(296)	(302)
Total shareholders' equity		**2,152**	**2,272**
Non-controlling interest equity		17	16
Total equity		**2,169**	**2,288**

Consolidated statement of changes in equity (unaudited)

	Notes	Share capital and share premium £m	Other reserves £m	Retained earnings £m	Hedge reserve £m	Equity shareholders' funds £m	Non-controlling Interest £m	Total equity £m
At 1 August 2018		506	242	1,826	(302)	2,272	16	2,288
Profit for the period				120		120	1	121
Other comprehensive income:								
Exchange losses net of recycling				(14)		(14)		(14)
Actuarial losses on retirement benefits and tax				(97)		(97)		(97)
Fair value gains					6	6		6
Total comprehensive income for the period				**9**	**6**	**15**	**1**	**16**
Transactions relating to ownership interests:								
Exercises of share options		2				2		2
Purchase of own shares				(19)		(19)		(19)
Dividends – equity shareholders	14			(122)		(122)		(122)
Share-based payment				4		4		4
At 31 January 2019		**508**	**242**	**1,698**	**(296)**	**2,152**	**17**	**2,169**

	Notes	Share capital and share premium £m	Other reserves £m	Retained earnings £m	Hedge reserve £m	Equity shareholders' funds £m	Non-controlling Interest £m	Total equity £m
At 1 August 2017		503	242	1,634	(290)	2,089	15	2,104
Profit for the period – restated*				104		104	1	105
Other comprehensive income:								
Exchange losses net of recycling				(178)		(178)	(1)	(179)
Actuarial losses on retirement benefits and tax				(28)		(28)		(28)
Fair value gains					89	89		89
Total comprehensive income/(expenditure) for the period				**(102)**	**89**	**(13)**		**(13)**
Transactions relating to ownership interests:								
Exercises of share options		3				3		3
Purchase of own shares				(15)		(15)		(15)
Dividends – equity shareholders	14			(117)		(117)		(117)
Share-based payment				5		5		5
At 31 January 2018 – restated*		**506**	**242**	**1,405**	**(201)**	**1,952**	**15**	**1,967**

* Results for the period ended 31 January 2018 and retained earnings at 31 January 2018 have been restated to reflect the adoption of IFRS 15. See note 1.

Consolidated cash-flow statement (unaudited)

	Notes	Period ended 31 January 2019 £m	Period ended 31 January 2018 £m
Net cash inflow from operating activities	15	**123**	**159**
Cash-flows from investing activities			
Expenditure on capitalised development		(12)	(13)
Expenditure on other intangible assets		(7)	(5)
Purchase of property, plant and equipment		(35)	(28)
Disposal of property, plant and equipment		1	2
Investment in financial assets		1	(2)
Disposal of investment			6
Acquisition of businesses			(15)
Disposal of businesses – continuing operations		29	
Net cash-flow used in investing activities		**(23)**	**(55)**
Cash-flows from financing activities			
Proceeds from exercise of share options		2	3
Purchase of own shares		(19)	(15)
Dividends paid to equity shareholders		(122)	(117)
Cash inflow/(outflow) from matured derivative financial instruments		(4)	4
Reduction and repayment of borrowings		(194)	(132)
Net cash-flow used in financing activities		**(337)**	**(257)**
Net decrease in cash and cash equivalents		**(237)**	**(153)**
Cash and cash equivalents at beginning of the period		717	781
Exchange differences			(37)
Cash and cash equivalents at end of the period		**480**	**591**
Cash and cash equivalents at end of the period comprise:			
– cash at bank and in hand		203	229
– short-term deposits		277	362
		480	**591**

Reconciliation of net cash-flow to movement in net debt

	Notes	Period ended 31 January 2019 £m	Period ended 31 January 2018 £m
Net debt at start of period	9	**(893)**	**(967)**
Net decrease in cash and cash equivalents		(237)	(153)
Reduction and repayment of borrowings		194	132
Movement in net debt resulting from cash-flows		**(43)**	**(21)**
Capitalisation, interest accruals and unwind of capitalisation of fees		(6)	
Fair value movement from interest rate hedging		(17)	3
Foreign exchange gains		21	24
Movement in net debt in the period		**(45)**	**6**
Net debt at end of period	9	**(938)**	**(961)**

Notes to the condensed interim financial statements

1 Basis of preparation

The financial information for the period ended 31 January 2019 does not constitute statutory accounts as defined in section 434 of the Companies Act 2006. A copy of the statutory accounts for the year ended 31 July 2018 has been delivered to the Registrar of Companies. The auditors' report on those accounts was not qualified, did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying the report, and did not contain statements under section 498(2) or (3) of the Companies Act 2006.

The financial information included in this announcement has been prepared on a going concern basis using accounting policies consistent with International Financial Reporting Standards (IFRS) as adopted by the European Union and in accordance with IAS 34 Interim Financial Reporting. The current period financial information presented in this document has been reviewed, not audited, and the review report is attached to this document.

The condensed interim financial statements should be read in conjunction with the annual financial statements for the year ended 31 July 2018, which have been prepared in accordance with IFRS as adopted by the European Union.

Accounting policies

The same accounting policies, estimates, presentation and methods of computation are followed in the half year report as applied in the Group's latest annual audited financial statements, with the exception of updating accounting policies to reflect changes required by the adoption of IFRS 9 and IFRS 15 (see below).

During the period the Group adopted the following standards:

— IFRS 9 – Financial Instruments. The Group has adopted IFRS 9 retrospectively from 1 August 2018. There was no material impact on adoption of this new standard. The Group's risk management strategies and hedge documentation are aligned with the requirements of IFRS 9 and these relationships are therefore treated as continuing hedges.

As disclosed in the Group's Annual Report and Accounts 2018, the new standard results in changes in the classification of all financial assets excluding derivatives. This re-classification does not have a quantitative impact on the financial statements.

The new standard has introduced an expected credit loss model, requiring expected credit loss to be recognised on all financial assets held at amortised cost. The Group has previously provided against bad and doubtful debts within trade and other receivables based on specific risk assessments and reference to past default experience. The reassessment and reclassification of existing provisions against the expected credit loss model has not had a material impact on the net assets of the Group.

— IFRS 15 – Revenue from contracts with customers. The Group has adopted IFRS 15 retrospectively from 1 August 2018. As a result of changes required to the Group's accounting policies arising from the adoption of this standard, prior period comparatives have been restated. The impact on adoption of this new standard is set out in the tables below:

	Period ended 31 January 2018			
	Revenue £m	Cost of Sales £m	Gross profit £m	Headline operating profit £m
Consolidated income statement				
As previously reported	1,549	(838)	711	247
IFRS 15 impact	(7)	8	1	1
Restated	**1,542**	**(830)**	**712**	**248**

	1 August 2017	31 January 2018	
	Opening net assets £m	Current trade and other receivables £m	Net assets £m
Consolidated balance sheet			
As previously reported	2,104	640	1,966
IFRS 15 impact		1	1
Restated	**2,104**	**641**	**1,967**

The new standard has set out a five-step model for the recognition of revenue and has established principles for reporting useful information to users of financial statements about the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity's contracts with customers.

The principal areas of impact for the Group's revenue recognition, as reflected in the analysis of revenue in note 2, comprise:

- Customer specific products – rephasing of revenue recognition for certain customer specific products in the Interconnect division that have no alternative use and for which the Group has the right to receive payment;
- Customer specific rights – rephasing of revenue recognition for contractual customer specific rights in the Medical division;
- Variable selling costs – certain expenses currently classified as variable selling costs have been reclassified as offsets to revenue. This classification change reduces revenue and cost of sales but has no impact on profit; and
- Contract assets and liabilities – certain assets and liabilities currently included within trade receivables, accrued income and deferred revenue have been reclassified as contract assets and liabilities.

A number of new standards and amendments to standards and interpretations have been issued but are not yet effective for the current accounting period. None of these are expected to have a material impact on the consolidated financial statements of the Group, except the following set out below:

— IFRS 16 – Leases, is effective for the Group's year ending 31 July 2020. The standard fundamentally changes the accounting treatment of leased assets, requiring all material lease liabilities and corresponding 'right of use' assets to be recognised on the balance sheet. The operating lease rental expense currently charged to operating profit in the income statement will be replaced by a depreciation charge for the 'right of use' assets recognised in operating profit and an interest charge on the lease liabilities recognised in finance costs.

The Group's IFRS 16 adoption project is currently on track and progressing well. IFRS 16 will be adopted prospectively from 1 August 2019, further details of the impact of IFRS 16 will be provided as part of the 2019 Annual Report disclosures.

Having assessed the principal risks discussed on page 11, the directors believe that the Group is well placed to manage its financing and other business risks satisfactorily, and have a reasonable expectation that the Group will have adequate resources to continue in operation for at least 12 months from the signing date of these financial statements. They therefore consider it appropriate to adopt the going concern basis of accounting in preparing the financial statements.

The interim financial information was approved by the Board on 21 March 2019.

Presentation of results

In order to provide users of the accounts with a clear and consistent presentation of the performance of the Group's ongoing trading activity, the income statement is presented in a three column format with 'headline' profits shown separately from non-headline items presented in a consistent form with the prior year.

Judgement is required in determining which items should be included as non-headline. The amortisation of acquired intangibles, impairments, legacy liabilities, material one-off items and certain re-measurements are included in a separate column of the income statement. See note 3 for a breakdown of the items excluded from headline operating profit and headline finance costs.

Performance measures for the Group's ongoing trading activity are described as 'headline' and used by management to measure and monitor performance. See note 2 for disclosures of headline operating profit and note 17 for more information about the calculation of return on capital employed and credit metrics.

In addition, the Group reports underlying growth rates for sales and profit measures and determining which items should be adjusted for involves judgement. Underlying growth excludes the impact of acquisitions, divestments and the effects of foreign exchange translation, by making the following adjustments:

— Exclude acquisitions from the current period for the first 12 months of ownership;

— Exclude the performance of divested businesses after the date of disposal from comparative period; and

— Retranslate the comparative to current year exchange rates before calculating growth measures.

2 Segment information

Analysis by operating segment

The Group is organised into five divisions: John Crane, Smiths Medical, Smiths Detection, Smiths Interconnect and Flex-Tek. These divisions design and manufacture the following products:

- John Crane – mechanical seals, seal support systems, power transmission couplings and specialised filtration systems;
- Smiths Medical – infusion systems, vascular access products, patient airway and temperature management equipment and specialised devices in areas of diagnostics and emergency patient transport;
- Smiths Detection – sensors and systems that detect and identify explosives, narcotics, weapons, chemical agents, biohazards and contraband;
- Smiths Interconnect – specialised electronic and radio frequency board-level and waveguide devices, connectors, cables, test sockets and sub-systems used in high-speed, high reliability, secure connectivity applications; and
- Flex-Tek – engineered components, flexible hosing and rigid tubing which heat and move fluids and gases.

The position and performance of each division is reported at each Board meeting to the Board of directors. This information is prepared using the same accounting policies as the consolidated financial information except that the Group uses headline operating profit to monitor divisional results and operating assets to monitor divisional position. See note 3 for an explanation of which items are excluded from headline profit measures.

Intersegment sales and transfers are charged at arm's length prices.

Segment trading performance

	Period ended 31 January 2019						
	John Crane £m	Smiths Medical £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate costs £m	Total £m
Revenue	449	430	361	184	149		1,573
Divisional headline operating profit	97	71	55	33	18		274
Corporate headline operating costs						(28)	(28)
Headline operating profit/(loss)	**97**	**71**	**55**	**33**	**18**	**(28)**	**246**
Items excluded from headline measures (note 3)	(3)	(2)	(12)	(1)	(1)	(31)	(50)
Profit on disposal of businesses		17					17
Operating profit/(loss)	**94**	**86**	**43**	**32**	**17**	**(59)**	**213**
Headline operating margin	21.7%	16.5%	15.2%	18.0%	11.9%		15.6%

	John Crane £m	Smiths Medical Restated £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect Restated £m	Corporate costs £m	Total Restated £m
							Period ended 31 January 2018
Revenue	428	443	367	168	136		1,542
Divisional headline operating profit	91	82	59	31	15		278
Corporate headline operating costs						(30)	(30)
Headline operating profit/(loss)	**91**	**82**	**59**	**31**	**15**	**(30)**	**248**
Items excluded from headline measures (note 3)	(5)	(3)	(20)	8	(2)	5	(17)
Profit on disposal of businesses					(1)		(1)
Operating profit/(loss)	**86**	**79**	**39**	**39**	**12**	**(25)**	**230**
Headline operating margin	21.3%	18.4%	16.2%	18.6%	10.6%		16.1%

Segment assets and liabilities

Segment assets

	John Crane £m	Smiths Medical £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate and non-headline £m	Total £m
							31 January 2019
Property, plant, equipment, development projects, other intangibles and investments	97	246	102	37	35	19	536
Inventory, trade and other receivables	366	254	437	117	106	19	1,299
Segment assets	**463**	**500**	**539**	**154**	**141**	**38**	**1,835**

	John Crane £m	Smiths Medical £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate and non-headline £m	Total £m
							31 July 2018
Property, plant, equipment, development projects, other intangibles and investments	94	242	101	37	35	21	530
Inventory, trade and other receivables	361	266	372	117	120	22	1,258
Segment assets	**455**	**508**	**473**	**154**	**155**	**43**	**1,788**

Non-headline assets comprise receivables relating to non-headline items, acquisitions and disposals.

Segment liabilities

	John Crane £m	Smiths Medical £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate and non-headline £m	Total £m
							31 January 2019
Divisional liabilities	(128)	(115)	(269)	(41)	(45)		(598)
Corporate and non-headline liabilities						(343)	(343)
Segment liabilities	**(128)**	**(115)**	**(269)**	**(41)**	**(45)**	**(343)**	**(941)**

	John Crane £m	Smiths Medical £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate and non-headline £m	Total £m
							31 July 2018
Divisional liabilities	(138)	(116)	(257)	(46)	(43)		(600)
Corporate and non-headline liabilities						(370)	(370)
Segment liabilities	**(138)**	**(116)**	**(257)**	**(46)**	**(43)**	**(370)**	**(970)**

Non-headline liabilities comprise provisions and accruals relating to non-headline items, acquisitions and disposals.

Reconciliation of segment assets and liabilities to statutory assets and liabilities

	Assets		Liabilities	
	31 January 2019 £m	31 July 2018 £m	31 January 2019 £m	31 July 2018 £m
Segment assets and liabilities	**1,835**	**1,788**	**(941)**	**(970)**
Goodwill and acquired intangibles	1,834	1,867		
Derivatives	51	57	(10)	(11)
Current and deferred tax	224	218	(138)	(149)
Retirement benefit assets and obligations	396	526	(144)	(145)
Cash and borrowings	480	717	(1,418)	(1,610)
Statutory assets and liabilities	**4,820**	**5,173**	**(2,651)**	**(2,885)**

Segment capital employed

Capital employed is a non-statutory measure of invested resources. It comprises statutory net assets adjusted to add goodwill recognised directly in reserves in respect of subsidiaries acquired before 1 August 1998 of £787m (31 July 2018: £787m) and eliminate post-retirement benefit assets and liabilities and litigation provisions relating to non-headline items, both net of related tax, and net debt. See note 17 for additional details.

The 12-month rolling average capital employed by division, which Smiths use to calculate divisional return on capital employed, is set out below:

						31 January 2019
	John Crane £m	Smiths Medical £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Total £m
Average divisional capital employed	905	1,222	1,099	206	357	3,789
Average corporate capital employed						(43)
Average total capital employed						**3,746**
Return on capital employed	**23.0%**	**11.9%**	**11.8%**	**33.3%**	**12.9%**	**14.5%**

						31 January 2018
	John Crane £m	Smiths Medical £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Total £m
Average divisional capital employed	874	1,212	1,027	185	385	3,683
Average corporate capital employed						8
Average total capital employed						**3,691**
Return on capital employed	**23.4%**	**15.8%**	**10.6%**	**36.4%**	**11.4%**	**15.2%**

Analysis of revenue

The revenue for the main product and service lines for each division is:

John Crane	Original equipment £m	Aftermarket £m	Total £m
Revenue period ended 31 January 2019	142	307	449
Revenue period ended 31 January 2018	144	284	428

Smiths Medical	Infusion systems £m	Vascular access £m	Vital care £m	Specialty products £m	Total £m
Revenue period ended 31 January 2019	151	140	126	13	430
Revenue period ended 31 January 2018 - Restated	149	150	122	22	443

Smiths Detection	Air transportation £m	Ports and borders £m	Defence £m	Urban security £m	Total £m
Revenue period ended 31 January 2019	229	42	11	79	361
Revenue period ended 31 January 2018	241	31	11	84	367

Flex-Tek	Fluid management £m	Flexible technologies £m	Heat solutions £m	Construction products £m	Total £m
Revenue period ended 31 January 2019	44	31	47	62	184
Revenue period ended 31 January 2018	41	31	41	55	168

Smiths Interconnect	Connectors £m	Microwave £m	Total £m
Revenue period ended 31 January 2019	113	36	149
Revenue period ended 31 January 2018 - Restated	95	41	136

3 Non-statutory profit measures

Headline profit measures

The Company seeks to present a measure of performance which is not impacted by material non-recurring items or items considered non-operational in nature. This measure of profit is described as 'headline' and is used by management to measure and monitor performance. See the disclosures on presentation of results in accounting policies for an explanation of the adjustments. The items excluded from 'headline' are referred to as 'non-headline' items.

Non-headline operating profit items

The non-headline items included in statutory operating profit are as follows:

	Period ended 31 January 2019 £m	Period ended 31 January 2018 £m
Morpho Detection – integration and fair value adjustment unwind		
Integration programmes	(5)	(11)
Unwind of fair value uplift of inventory on the acquisition balance sheet		(1)
Non-headline litigation provision movements		
Release of provision held against Titeflex Corporation subrogation claims	2	8
John Crane, Inc. asbestos litigation expense	(2)	(4)
Cost recovery for John Crane, Inc. asbestos litigation	4	
Legacy pension scheme arrangements		
Guaranteed Minimum Pensions (GMP) equalisation	(29)	
Settlement gains on post-retirement benefit schemes		4
Acquisition and disposal related transactions costs and provision releases		
Business acquisition / disposal costs	(6)	
Medical separation costs	(1)	
Release of acquisition related provisions	4	2
Other items		
Amortisation of acquisition related intangible assets	(17)	(15)
Profit/(loss) on disposal of businesses	17	(1)
Non-headline items in operating profit	**(33)**	**(18)**

Morpho Detection – integration and fair value adjustment unwind

Integration programmes comprise £5m (31 January 2018: £11m) in respect of the integration of the Morpho Detection acquisition into the existing Smiths Detection business. This item includes site rationalisation costs, IT system harmonisation expenses and entity closure costs. This integration programme, which is expected to conclude in 2020, has been included as a non-headline item as it is considered material and non-recurring.

The £1m impact of unwinding the business combination fair value adjustment on the inventory held on Morpho Detection's acquisition balance sheet was included in non-headline items in the prior year as this charge was a result of acquisition accounting and did not relate to trading activity.

Non-headline litigation provision movements

The following litigation cost and recoveries have been treated as non-headline items because the provisions were treated as non-headline when originally recognised and the subrogation claims and litigation relate to products that the Group no longer sells in these markets:

A provision release of £2m (31 January 2018: £8m) has been recognised by Titeflex Corporation in respect of changes to the estimated cost of future claims. The release is principally related to a fall in the expected number of claims. See note 11 for further details; and

The £2m (31 January 2018: £4m) charge in respect of John Crane, Inc. asbestos litigation is principally due to litigation management expenses. The costs recovered via insurer settlements in the current period were £4m (31 January 2018: £nil). See note 11 for further details.

Legacy pension scheme arrangement

In the current period £29m of past service costs (31 January 2018: £nil) were recognised following the UK High Court ruling that GMP equalisation is required. This is included in non-headline as it is material, non-recurring and relates to legacy pension liabilities. See note 6 for further details.

Acquisition and disposal transactions costs and provision release

The £6m of business acquisition / disposal costs comprise £4m of directly linked incremental transaction costs, principally related to the acquisition of United Flexible which completed in February 2019 and £2m of litigation settlement costs relating to a prior year disposal. These costs do not include the cost of employees working on transactions and are reported as non-headline because they are dependent on the level of acquisition and disposal activity in the year.

The directly attributable incremental costs incurred on the transaction to separate the Smiths Medical business from the remaining Group amounted to £1m in the half year. This cost has been reported as non-headline as the full year effect of the transaction on the Group's financial statements is expected to be both material and non-recurring.

The release of acquisition related provisions of £4m (31 January 2018: £2m) represents the release of excess accruals for deferred consideration on business acquisitions. These are reported as non-headline as the initial provision accrual was not recognised as a headline expense.

Other items

Acquisition related intangible asset amortisation costs of £17m (31 January 2018: £15m) were recognised in the current year. This is considered to be a non-headline item on the basis that these charges result from acquisition accounting and do not relate to current trading activity.

The profit on disposal of businesses of £17m (31 January 2018: £1m loss) relates to the sale of Medical's sterile water bottling and EMEA kitting businesses. See note 13. These are considered to be non-headline items since the profit and cash impact is material and non-recurring.

Non-headline finance costs items

The non-headline items included in finance costs are as follows:

	Period ended 31 January 2019 £m	Period ended 31 January 2018 £m
Unwind of discount on provisions	(4)	(3)
Other financing losses	(11)	
Other finance income – retirement benefits	6	3
Non-headline items in finance costs	**(9)**	

The unwind of discount on provisions has been excluded from headline finance costs because these provisions were originally recognised as non-headline and this treatment has been maintained for ongoing costs and credits.

Other financing gains and losses represent the potentially volatile gains and losses on derivatives, loans inside the group and other financial instruments which are not hedge accounted under IFRS 9. They have been excluded from headline finance costs because they do not accurately reflect the aggregate risks of the group, since offsetting gains have been recognised in reserves or deferred in assets and liabilities which are not held at fair value.

Other finance income comprises financing credits relating to retirement benefits. These are excluded from headline finance costs because the ongoing costs and credits are a legacy of previous employee pension arrangements.

4 Earnings per share

Basic earnings per share are calculated by dividing the profit for the period attributable to equity shareholders of the Parent Company by the average number of ordinary shares in issue during the year.

	Period ended 31 January 2019 £m	Period ended 31 January 2018 Restated £m
Profit attributable to equity shareholders for the period – total	120	104
Average number of shares in issue during the period	395,924,559	395,690,311

Diluted earnings per share are calculated by dividing the profit attributable to ordinary shareholders by 400,943,218 (period ended 31 January 2018: 401,246,135) ordinary shares, being the average number of ordinary shares in issue during the year adjusted by the dilutive effect of employee share schemes.

A reconciliation of statutory and headline earnings per share is as follows:

	Period ended 31 January 2019		Period ended 31 January 2018 - Restated	
	£m	EPS (p)	£m	EPS (p)
Basic earnings per share:				
Profit attributable to equity shareholders of the Parent Company	120	30.3	104	26.3
Exclude:				
Non-headline items and related tax (note 3)	39	9.9	57	14.4
Headline profit attributable to equity shareholders of the Parent Company	159	40.2	161	40.7
Statutory earnings per share – diluted (p)		29.9		25.9
Headline earnings per share – diluted (p)		39.7		40.1

5 Taxation

The interim tax rate of 30.4% (31 January 2018: 47.5%) is calculated by applying the estimated effective headline tax rate of 26.0% (31 January 2018: 25.8%) for the year ended 31 July 2019 to headline profit before tax and then taking into account the tax effect of non-headline items in the interim period.

A reconciliation of headline and total tax charge is as follows:

	Period ended 31 January 2019		Period ended 31 January 2018 - Restated	
	Continuing operations £m	Tax rate	Continuing operations £m	Tax rate
Headline tax rate				
Headline profit before taxation	216		218	
Taxation on headline profit	(56)	26.0%	(56)	25.8%
Adjustments				
Non-headline items excluded from profit before taxation (note 3)	(42)		(18)	
Taxation on non-headline items and non-headline tax adjustment	3		(39)	
Total interim tax rate				
Profit before taxation	174		200	
Taxation	(53)	30.4%	(95)	47.5%

The changes in the value of the net tax asset/(liability) in the period were:

	Current tax £m	Deferred tax £m	Net tax balance £m
At 31 July 2018	(34)	103	69
Charge to income statement	(51)	(2)	(53)
Credit to reserves		18	18
Tax paid	52		52
At 31 January 2019	**(33)**	**119**	**86**

The deferred tax credit to reserves mainly relates to UK pension plans.

Developments in the Group tax position

Franked Investment Income Group Litigation Order (FII GLO)

Smiths Group is one of the companies enrolled in the FII GLO litigation against the UK's HMRC. The court actions first filed in 2003 are nearing an end and some claimants with different fact patterns have received payments. There are further relevant legal actions that could impact Smiths' recoveries that amount to approximately £28m, after deducting the 45% withholding tax. The Group has not recognised any impact to the financial statements in the current period or the prior year, due to the uncertainty of the eventual outcome.

EU Commission Investigation regarding Claims for Partial (75%) Exemption for Profits from qualifying loan relationships under Chapter 9 FA2012

In October 2017, the European Commission opened a state aid investigation into the Group Financing Exemption in the UK controlled foreign company rules. The Group Financing Exemption was introduced in legislation by the UK government in 2013. In common with other UK-based international companies whose arrangements were in line with the UK CFC legislation existing at the time, Smiths Group may be affected by the outcome of this investigation and is monitoring developments. If the preliminary findings of the European Commission's investigation are upheld, the estimated maximum potential liability is approximately £15 million. Based on our current assessment, no provision is being made in respect of this issue.

6 Post retirement benefits

The Group provides post-retirement benefits to employees in a number of countries throughout the world. The arrangements include defined benefit and defined contribution plans and, mainly in the United Kingdom (UK) and United States of America (US), post-retirement healthcare. The principal defined benefit pension plans are in the UK and in the US, and these have been closed so that no future benefits are accrued.

Where any individual scheme shows a surplus under IAS 19, this is disclosed on the balance sheet as a retirement benefit asset. The IAS 19 surplus of any one scheme is not available to fund the IAS 19 deficit of another scheme. The retirement benefit asset arises from the rights of the employers to recover the surplus at the end of the life of the scheme. The schemes in surplus are mature, with a duration averaged over all scheme participants of 17 years. However 35% of the liabilities of these schemes are expected to be paid after 2038.

The amounts recognised in the balance sheet were as follows:

	31 January 2019 £m	31 July 2018 £m
Market value of funded plan assets	4,094	4,139
Present value of funded scheme liabilities	(3,718)	(3,633)
Unfunded pension plans	(108)	(109)
Postretirement healthcare	(16)	(16)
Net retirement benefit asset	**252**	**381**
Retirement benefit assets	396	526
Retirement benefit obligations	(144)	(145)
Net retirement benefit asset	**252**	**381**

The principal assumptions used in updating the valuations are set out below:

	31 January 2019		31 July 2018	
	UK	US	UK	US
Rate of increase for active deferred members	4.1%	n/a	4.1%	n/a
Rate of increase in pensions in payment	3.2%	n/a	3.2%	n/a
Rate of increase in deferred pensions	3.2%	n/a	3.2%	n/a
Discount rate	2.6%	4.15%	2.8%	4.15%

The methods for setting the mortality assumptions for the UK schemes are consistent with the 31 July 2018 valuation. The US schemes have adopted the mortality improvement scale MP-2018 (31 July 2018 – MP-2017).

Present value of funded scheme liabilities and assets for the main UK and US schemes

	31 January 2019 – £m			31 July 2018 – £m		
	SIPS	TIGPS	US schemes	SIPS	TIGPS	US schemes
Present value of funded scheme liabilities						
– Active deferred members	(59)	(58)	(87)	(57)	(56)	(88)
– Deferred members	(825)	(563)	(112)	(784)	(550)	(115)
– Pensioners	(1,080)	(824)	(51)	(1,070)	(804)	(47)
Present value of funded scheme liabilities	**(1,964)**	**(1,445)**	**(250)**	**(1,911)**	**(1,410)**	**(250)**
Market value of scheme assets	2,187	1,618	237	2,214	1,633	239
Surplus/(deficit)	**223**	**173**	**(13)**	**303**	**223**	**(11)**

Contributions

Group contributions to the funded defined benefit pension plans totalled £12m (31 January 2018: £27m), this comprised regular contributions of £6m to SIPS and £6m to TIGPS. In the prior period an additional one-off £12m contribution was made to US schemes. In addition, £3m was spent on providing benefits under unfunded defined benefit pension and post-retirement healthcare plans (31 January 2018: £3m). No additional contributions to support risk reduction programmes were made in the current period.

The changes in the present value of the net pension balance in the period were:

	Period ended 31 January 2019 £m	Year ended 31 July 2018 £m
At beginning of period	381	224
Exchange adjustment	1	
Current service cost	(2)	(3)
Scheme administration costs	(3)	(5)
Finance credits – retirement benefits	6	7
Contributions by employer	15	49
Past service costs, curtailments and settlements	(29)	5
Actuarial (loss)/gain	(117)	104
Net retirement benefit asset	**252**	**381**

Guaranteed Minimum Pensions (GMP) equalisation

Guaranteed Minimum Pension ("GMP") is a portion of pension that was accrued by individuals who were contracted out of the State Second Pension prior to 6 April 1997. Historically there was an inequality of benefits between male and female members who have GMP. A past service cost of £29m (31 January 2018: £nil) was recognised in the current period following the UK High Court ruling that GMP equalisation is required.

7 Intangible assets

	Notes	Goodwill £m	Development costs £m	Acquired intangibles £m	Software, patents and intellectual property £m	Total £m
Cost						
At 31 July 2018		1,704	360	582	207	2,853
Exchange adjustments		(9)	(2)	(1)	(1)	(13)
Additions			13		7	20
Disposals					(1)	(1)
Business disposals		(7)				(7)
At 31 January 2019		1,688	371	581	212	2,852
Amortisation						
At 31 July 2018		88	205	331	168	792
Exchange adjustments			(1)	(1)		(2)
Charge for the period			11	17	6	34
At 31 January 2019		88	215	347	174	824
Net book value at 31 January 2019		1,600	156	234	38	2,028
Net book value at 31 July 2018		1,616	155	251	39	2,061

8 Property, plant and equipment

	Land and buildings £m	Plant and machinery £m	Fixtures, fittings, tools and equipment £m	Total £m
Cost				
At 31 July 2018	207	637	194	1,038
Exchange adjustments	(2)	1	(6)	(7)
Additions	5	24	6	35
Disposals	(2)	(15)	(6)	(23)
Business disposals		(2)	(1)	(3)
At 31 January 2019	**208**	**645**	**187**	**1,040**
Depreciation				
At 31 July 2018	107	459	152	718
Exchange adjustments	(1)	2	(5)	(4)
Charge for the period	7	14	6	27
Disposals	(2)	(14)	(6)	(22)
Business disposals		(2)	(1)	(3)
At 31 January 2019	**111**	**459**	**146**	**716**
Net book value at 31 January 2019	**97**	**186**	**41**	**324**
Net book value at 31 July 2018	100	178	42	320

9 Borrowings and net debt

This note sets out the calculation of net debt, an important measure in explaining our financing position. The net debt figure includes accrued interest and the fair value adjustments to debt relating to hedge accounting.

	31 January 2019 £m	31 July 2018 £m
Cash and cash equivalents		
Net cash and deposits including money market funds	480	717
Short-term borrowings		
$250m 7.20% US$ Guaranteed notes 2019		(190)
Bank and other loans	(1)	(1)
Interest accrual	(17)	(12)
	(18)	(203)
Long-term borrowings		
$400m 3.625% US$ Guaranteed notes 2022	(302)	(298)
€600m 1.25% Eurobond 2023	(526)	(533)
€650m 2.00% Eurobond 2027	(571)	(575)
Bank and other loans	(1)	(1)
	(1,400)	**(1,407)**
Borrowings	**(1,418)**	**(1,610)**
Net debt	**(938)**	**(893)**

On 4 September 2018, the Group prepaid the US$250m 7.20% US$ Guaranteed notes due in May 2019. The maturity date of the US$800m Revolving Credit Facility was extended for one year until 1 November 2023. The facility has one further one-year extension option remaining to extend the maturity until 2024. At 31 January 2019 this Revolving Credit Facility was undrawn.

Movements in net debt

	Net cash and cash equivalents £m	Other short-term borrowing £m	Long-term borrowings £m	Net debt £m
At 31 July 2018	717	(203)	(1,407)	(893)
Foreign exchange (losses) / gains		(4)	25	21
Net cash outflow	(237)			(237)
Repayment and drawdown of borrowings		194		194
Capitalisation, interest accruals and unwind of capitalisation of fees		(5)	(1)	(6)
Fair value debt adjustments from hedge accounting			(17)	(17)
At 31 January 2019	**480**	**(18)**	**(1,400)**	**(938)**

10 Fair value of financial instruments

	Carrying value 31 January 2019 £m	Fair value 31 January 2019 £m	Carrying value 31 July 2018 £m	Fair value 31 July 2018 £m
Level 2 valuations				
Financial assets – money market funds	138	138	200	200
Financial assets – other investments	13	13	13	13
Financial derivatives – assets	51	51	57	57
Borrowings	(1,418)	(1,406)	(1,610)	(1,636)
Financial derivatives – liabilities	(10)	(10)	(10)	(10)
Level 3 valuations				
Financial assets – other investments	5	5	4	4

Derivatives are valued at the net present value of the future cash-flows calculated using market exchange rates and yield curves at the balance sheet date. Borrowings are valued at the net present value of the future cash-flows using credit spreads and yield curves derived from market data.

Cash, trade receivables and trade payables are excluded from this table because carrying value is a reasonable approximation to fair value for all these assets and liabilities.

11 Provisions and contingent liabilities

	Trading	Non-headline and legacy			Total
	£m	John Crane, Inc. litigation £m	Titeflex Corporation litigation £m	Other £m	£m
Current liabilities	21	29	20	6	76
Non-current liabilities	2	194	58	8	262
At 31 July 2018	**23**	**223**	**78**	**14**	**338**
Provision charged	6		2	5	13
Provision released	(5)		(4)	(1)	(10)
Unwind of provision discount		3	1		4
Utilisation	(7)	(8)	(3)	(2)	(20)
At 31 January 2019	**17**	**218**	**74**	**16**	**325**
Current liabilities	16	30	16	8	70
Non-current liabilities	1	188	58	8	255
At 31 January 2019	**17**	**218**	**74**	**16**	**325**

The John Crane, Inc. and Titeflex Corporation litigation provisions are the only provisions which are discounted.

Trading provisions and contingent liabilities:

Warranty provision and product liability

At 31 January 2019 there are warranty and product liability provisions of £16m (31 July 2018: £22m). Warranties over the Group's products typically cover periods of between one and three years. Provision is made for the likely cost of after-sales support based on the recent past experience of individual businesses.

Commercial disputes and litigation in respect of ongoing business activities

The Group has on occasion been required to take legal action to protect its intellectual property and other rights against infringement. It has also had to defend itself against proceedings brought by other parties, including product liability and insurance subrogation claims. Provision is made for any expected costs and liabilities in relation to these proceedings where appropriate, though there can be no guarantee that such provisions (which may be subject to potentially material revision from time to time) will accurately predict the actual costs and liabilities that may be incurred.

Contingent liabilities

In the ordinary course of its business, the Group is subject to commercial disputes and litigation such as government price audits, product liability claims, employee disputes and other kinds of lawsuits, and faces different types of legal issues in different jurisdictions. The high level of activity in the US, for example, exposes the Group to the likelihood of various types of litigation commonplace in that country, such as 'mass tort' and 'class action' litigation, legal challenges to the scope and validity of patents, and product liability and insurance subrogation claims. These types of proceedings (or the threat of them) are also used to create pressure to encourage negotiated settlement of disputes. Any claim brought against the Group (with or without merit), could be costly to defend. These matters are inherently difficult to quantify. In appropriate cases a provision is recognised based on best estimates and management judgement, but there can be no guarantee that these provisions (which may be subject to potentially material revision from time to time) will result in an accurate prediction of the actual costs and liabilities that may be incurred. There are also contingent liabilities in respect of litigation for which no provisions are made.

The Group operates in some markets where the risk of unethical or corrupt behaviour is material and has procedures, including an employee 'Ethics Alertline', to help it identify potential issues. Such procedures will, from time to time, give rise to internal investigations, sometimes conducted with external support, to ensure that the Group properly understands risks and concerns and can take steps both to manage immediate issues and to improve its practices and procedures for the future. The Group also co-operates with relevant authorities in investigating business conduct issues whenever requested to. The Group is not aware of any issues which are expected to generate material financial exposures.

Non-headline and legacy provisions and contingent liabilities:

John Crane, Inc.

John Crane, Inc. ("JCI") is one of many co-defendants in numerous lawsuits pending in the United States in which plaintiffs are claiming damages arising from alleged exposure to, or use of, products previously manufactured which contained asbestos. The JCI products generally referred to in these cases consist of industrial sealing product, primarily packing and gaskets. The asbestos was encapsulated within these products in such a manner that causes JCI to believe, based on tests conducted on its behalf, that the products were safe. JCI ceased manufacturing products containing asbestos in 1985.

The table below summarises the JCI claims experience over the last 39 years since the start of this litigation:

	31 January 2019	31 July 2018
JCI claims experience		
Claims against JCI that have been dismissed	281,000	277,000
Claims which JCI is currently a defendant in	40,000	43,000
Cumulative final judgments, after appeals, against JCI since 1979	140	140
Cumulative value of awards ($'m) since 1979	164	164

John Crane, Inc. litigation insurance recoveries

While JCI has excess liability insurance, the availability of such insurance and scope of the cover are currently the subject of litigation in the United States. Pending the outcome of that litigation, JCI has met defence costs directly. The calculation of the provision does not take account of any potential recoveries from insurers. See note 3 for the cost recovery achieved in the current period.

John Crane, Inc. litigation provision

The provision is based on past history and published tables of asbestos incidence projections and is determined using asbestos valuation experts, Bates White LLC. The assumptions made in assessing the appropriate level of provision include: the period over which the expenditure can be reliably estimated; the future trend of legal costs; the rate of future claims filed; the rate of successful resolution of claims; and the average amount of judgments awarded.

The JCI asbestos litigation provision has developed in the period as follows:

	Period ended 31 January 2019 £m	Year ended 31 July 2018 £m
John Crane, Inc. litigation provision		
Gross provision	242	251
Discount	(24)	(28)
Discounted provision	**218**	**223**
Operating profit (credit)/charge		
(Decreased)/increased provision for adverse judgments and legal defence costs	(3)	13
Increased/(decreased) provision for change in US risk free rates	3	(6)
Litigation management expense - legal fees in connection with litigation against insurers and defence strategy	2	3
Recoveries from insurers	(4)	
Operating profit (credit)/charge	**(2)**	**10**
Cash-flow		
Provision utilisation	(9)	(27)
John Crane, Inc. litigation spend	10	30

John Crane, Inc. litigation provision sensitivities

The provision may be subject to potentially material revision from time to time if new information becomes available as a result of future events. There can be no guarantee that the assumptions used to estimate the provision will result in an accurate prediction of the actual costs that may be incurred because of the significant uncertainty associated with the future level of asbestos claims and of the costs arising out of related litigation.

Statistical reliability of projections over the ten year time horizon

In order to evaluate the statistical reliability of the projections, a population of outcomes is modelled using randomised verdict outcomes. This generated a distribution of outcomes with future spend at the 5th percentile of £221m and future spend at the 95th percentile of £278m (31 July 2018: £230m and £290m, respectively). Statistical analysis of the distribution of these outcomes indicates that there is a 50% probability that the total future spend will fall between £229m and £251m (31 July 2018: between £238m and £263m), compared with the gross provision value of £242m (31 July 2018: £251m).

Sensitivity of the projections to changes in the time horizon used

If the asbestos litigation environment becomes more volatile and uncertain, for example if defendants are successful in legal cases against plaintiff law firms and this impacts the nature of claims filed, the time horizon over which the provision can be calculated may reduce. Conversely, if the environment became more stable, or JCI changed approach and committed to long term settlement arrangements, the time period covered by the provision might be extended.

The projections use a 10 year time horizon. Reducing the time horizon by one year would reduce the provision by £15m (31 July 2018: £15m) and reducing it by five years would reduce the provision by £89m (31 July 2018: £91m).

We consider, after obtaining advice from Bates White LLC, that to forecast beyond ten years requires that the litigation environment remains largely unchanged with respect to the historical experience used for estimating future asbestos expenditures. Historically, the asbestos litigation environment has undergone significant changes more often than every ten years. If one assumed that the asbestos litigation environment would remain unchanged for longer and extended the time horizon by one year it would increase the provision by £13m (31 July 2018: £13m) and extending it by five years would increase the provision by £51m (31 July 2018: £52m). However, there are also reasonable scenarios that, given certain recent events in the US asbestos litigation environment, would result in no additional asbestos litigation for JCI beyond ten years. At this time, how the asbestos litigation environment may evolve beyond 10 years is not reasonably estimable.

John Crane, Inc. contingent liabilities

Provision has been made for future defence costs and the cost of adverse judgments expected to occur. JCI's claims experience is significantly impacted by other factors which influence the US litigation environment. These can include: changing approaches on the part of the plaintiffs' bar; changing attitudes amongst the judiciary at both trial and appellate levels; and legislative and procedural changes in both the state and federal court systems. As a result, whilst the Group anticipates that asbestos litigation will continue beyond the period covered by the provision, the uncertainty surrounding the US litigation environment beyond this point is such that the costs cannot be reliably estimated.

Although the methodology used to calculate the JCI litigation provision can in theory be applied to show claims and costs for longer periods, the directors consider, based on advice from Bates White LLC, that the level of uncertainty regarding the factors used in estimating future costs is too great to provide for reasonable estimation of the number of future claims, the nature of such claims or the cost to resolve them for years beyond the 10 year time horizon.

Titeflex Corporation

In recent years Titeflex Corporation, a subsidiary of the Group in the Flex-Tek division, has received a number of claims from insurance companies seeking recompense on a subrogated basis for the effects of damage allegedly caused by lightning strikes in relation to its flexible gas piping product. It has also received a number of product liability claims regarding this product, some in the form of purported class actions. Titeflex Corporation believes that its products are a safe and effective means of delivering gas when installed in accordance with the manufacturer's instructions and local and national codes; however some claims have been settled on an individual basis without admission of liability. Equivalent third-party products in the US marketplace face similar challenges.

Titeflex Corporation litigation provision

The continuing progress of claims and the pattern of settlement provide sufficient evidence to recognise a liability in the accounts. Therefore provision has been made for the costs which the Group is expected to incur in respect of future claims to the extent that such costs can be reliably estimated. Titeflex Corporation sells flexible gas piping with extensive installation and safety guidance (revised in 2008) designed to assure the safety of the product and minimise the risk of damage associated with lightning strikes.

The assumptions made in assessing the appropriate level of provision, which are based on past experience, include: the period over which expenditure can be reliably estimated; the number of future settlements; the average amount of settlements; and the impact of statutes of repose and safe installation initiatives on the expected number of future claims.

The provision of £74m (31 July 2018: £78m) is a discounted pre-tax provision using discount rates, being the risk-free rate on US debt instruments for the appropriate period. The deferred tax asset related to this provision is shown within the deferred tax balance.

	31 January 2019 £m	31 July 2018 £m
Gross provision	124	129
Discount	(50)	(51)
Discounted pre-tax provision	**74**	**78**
Deferred tax	(19)	(19)
Discounted post-tax provision	**55**	**59**

Titeflex Corporation litigation provision sensitivities

The significant uncertainty associated with the future level of claims and of the costs arising out of related litigation means that there can be no guarantee that the assumptions used to estimate the provision will result in an accurate prediction of the actual costs that may be incurred. Therefore the provision may be subject to potentially material revision from time to time, if new information becomes available as a result of future events.

The projections incorporate a long-term assumption regarding the impact of safe installation initiatives on the level of future claims. If the assumed annual benefit of bonding and grounding initiatives were 0.5% higher, the provision would be £4m (31 July 2018: £4m) lower, and if the benefit were 0.5% lower, the provision would be £5m (31 July 2018: £5m) higher.

Other non-headline and legacy

Legacy provisions comprise provisions relating to former business activities and properties no longer used by the Group. Non-headline provisions comprise all provisions which were disclosed as non-headline items when they were charged to the income statement.

These provisions cover non-headline reorganisation, vacant properties, disposal indemnities and litigation in respect of old products and discontinued business activities.

12 Acquisitions

No acquisitions were completed during the six month period ending 31 January 2019. In the prior year the Group acquired Tutco Sureheat on 1 November 2017 and Seebach GmbH on 13 June 2018.

On 19 February 2019, the Group's Flex-Tek division completed the acquisition of United Flexible, an engineering solutions business, for US$345m. The acquisition strengthens Flex-Tek's positions in aerospace and industrial end markets globally. In the unaudited accounts for the 12 months to 31 December 2018, United Flexible generated sales of US$153m and adjusted earnings before interest, tax, depreciation and amortisation of US$33m. The acquisition consideration was paid from existing cash and bank facilities. Acquisition accounting for United Flexible is in progress and will be updated in the 31 July 2019 annual report.

13 Disposals

Smiths Medical completed the sale of its sterile water bottling business on 31 October 2018 and the sale of its EMEA kitting business on 9 November 2018. The net consideration received for these disposals was £29m, being gross consideration of £30m less £1m of disposal related costs.

The net profit on business disposals recognised in the period was as follows:

	Total £m
Profit on sale of Medical's sterile water bottling business	22
Loss on sale of Medical's EMEA kitting business	(5)
Net profit on business disposals	**17**

At 31 January 2019 no businesses were disclosed as held for sale. In the prior year the assets and liabilities of the John Crane Bearings business were disclosed as held for sale at 31 January 2018, with the sale completing on 31 May 2018.

14 Dividends

The following dividends were declared and paid in the period:

	Period ended 31 January 2019 £m	Period ended 31 January 2018 £m
Ordinary final dividend of 30.75p for 2018 (2017: 29.70p) paid 16 November 2018	**122**	**117**

An interim dividend of 14.1 pence per share was declared by the Board on 21 March 2019 and will be paid to shareholders on 26 April 2019. This dividend has not been included as a liability in these accounts and is payable to all shareholders on the register of members at close of business on 5 April 2019.

15 Cash-flow from operating activities

	Period ended 31 January 2019			Period ended 31 January 2018		
	Headline £m	Non-headline (note 3) £m	Total £m	Headline Restated £m	Non-headline (note 3) £m	Total Restated £m
Operating profit/(loss)	246	(33)	213	248	(18)	230
Amortisation of intangible assets	17	17	34	21	17	38
Depreciation of property, plant and equipment	27		27	27		27
Loss on disposal of property, plant and equipment	1		1	1		1
Profit on disposal of business		(17)	(17)			
Profit on disposal of investment					(1)	(1)
Share-based payment expense	7		7	5		5
Retirement benefits	3	15	18	2	(32)	(30)
(Increase)/decrease in inventories	(50)		(50)	(19)	1	(18)
(Increase)/decrease in trade and other receivables	(2)	3	1	32		32
Decrease in trade and other payables	(10)	(6)	(16)	(30)	(1)	(31)
Decrease in provisions	(6)	(12)	(18)	(2)	(20)	(22)
Cash generated from operations	233	(33)	200	**285**	**(54)**	**231**
Interest paid	(29)		(29)	(34)	(5)	(39)
Interest received	4		4	3	2	5
Tax paid	(52)		(52)	(38)		(38)
Net cash inflow/(outflow) from operating activities	156	(33)	123	**216**	**(57)**	**159**

The split of tax payments between headline and non-headline only considers the nature of payments made. No adjustment has been made for reductions in tax payments required as a result of tax relief received on non-headline items.

Headline cash measures

The Group measure of headline operating cash excludes interest and tax and includes capital expenditure supporting organic growth.

	Period ended 31 January 2019			Period ended 31 January 2018		
	Headline £m	Non-headline £m	Total £m	Headline £m	Non-headline £m	Total £m
Net cash inflow from operating activities	156	(33)	123	**216**	**(57)**	**159**
Include:						
Expenditure on capitalised development, other intangible assets and property, plant and equipment	(54)		(54)	(46)		(46)
Disposals of property, plant and equipment	1		1	2		2
Investment in financial assets relating to operating activities	1		1	(2)		(2)
Free cash-flow	104	(33)	71	**170**	**(57)**	**113**
Exclude:						
Investment in financial assets relating to operating activities	(1)		(1)	2		2
Interest paid	29		29	34	5	39
Interest received	(4)		(4)	(3)	(2)	(5)
Tax paid	52		52	38		38
Headline operating cash-flow	180	(33)	147	**241**	**(54)**	**187**

Reconciliation of free cash-flow to total movement in cash and cash equivalents

	Period ended 31 January 2019 £m	Period ended 31 January 2018 £m
Free cash-flow	**71**	**113**
Acquisition of businesses		(15)
Disposal of businesses	29	
Disposal of investments		6
Net cash-flow used in financing activities	(337)	(257)
Net decrease in cash and cash equivalents	**(237)**	**(153)**

16 Related party transactions

The related party transactions in the period were consistent with the nature and size of transactions disclosed in the Annual Report for the year ended 31 July 2018.

17 Non-statutory capital and credit metrics

In addition to the non-statutory profit measures explained in note 3, the Group calculates credit metrics and return on capital employed incorporating the same adjustments. See the disclosures on presentation of results in accounting policies for an explanation of the adjustments.

Return on capital employed (ROCE)

The Group's ROCE is calculated over a rolling 12-month period and is the percentage which headline operating profit comprises of monthly average capital employed.

See note 2 for the divisional headline operating profit and average divisional capital employed used to calculate divisional ROCE.

Capital employed

Capital employed is a non-statutory measure of invested resources. It comprises statutory net assets adjusted to add goodwill recognised directly in reserves in respect of subsidiaries acquired before 1 August 1998 of £787m (31 January 2018: £787m) and eliminate post-retirement benefit assets and liabilities and litigation provisions relating to non-headline items, both net of related tax, and net debt.

	Notes	31 January 2019 £m	31 January 2018 Restated £m
Net assets		**2,169**	**1,967**
Adjust for:			
Goodwill recognised directly in reserves		787	787
Post-retirement benefit assets, liabilities and related tax	6	(190)	(207)
John Crane, Inc. litigation provisions and related tax		172	168
Titeflex Corporation litigation provisions and related tax		55	51
Net debt	9	938	961
Capital employed		**3,931**	**3,727**

Return on capital employed

	Notes	31 January 2019 £m	31 January 2018 Restated £m
Headline operating profit for previous twelve months		542	560
Monthly average capital employed	2	3,746	3,691
ROCE		**14.5%**	**15.2%**

Credit metrics

Smiths Group monitors the ratio of net debt to headline earnings before interest, tax, depreciation and amortisation as part of its management of credit ratings. This ratio is calculated as follows:

Headline earnings before interest, tax, depreciation and amortisation (Headline EBITDA)

	Notes	Period ended 31 January 2019 £m	Period ended 31 January 2018 Restated £m
Headline operating profit	2	246	**248**
Exclude:			
– depreciation	8	27	27
– amortisation of development costs	7	11	14
– amortisation of software, patents and intellectual property	7	6	9
Headline EBITDA		**290**	**298**

Annualised headline EBITDA

	Notes	Period ended 31 January 2019 £m	Period ended 31 January 2018 Restated £m
Headline EBITDA for the period		290	**298**
Add:			
– headline EBITDA for the previous year		641	690
Exclude:			
– headline EBITDA for the first six months of the previous year		(298)	(329)
Annualised headline EBITDA		**633**	**659**

Ratio of net debt to annualised headline EBITDA

	Notes	31 January 2019 £m	31 January 2018 Restated £m
Annualised headline EBITDA		633	659
Net debt	9	938	961
Ratio of net debt to headline EBITDA		**1.5**	**1.5**