

21 March 2023

Timely reminders of an unsafe world

As the acronym suggests, Kromek's technology in the CBRN segment detects a wide range of threats, from radiological to biological hazards. These are united by two common themes: **practicability** – making ultra-high performance detection devices compact, robust and easily-deployed – and **connectivity** – enabling data sharing and analysis, to facilitate rapid response.

A number of recent events, and reports, serve as a timely reminder that Kromek's CBRN technology has urgent practical applications.

Radiological detection

- **Minnesota nuclear power plant leak.** As reported in *The Independent* a few days ago (see: www.independent.co.uk/climate-change/news/minnesota-nuclear-power-plant-water-leak-b2303498.html) the discharge of 400,000 gallons (1.82m litres) of water containing tritium from Xcel Energy's Monticello nuclear facility on the Mississippi 35 miles from Minneapolis. The leak went unreported for *four months*.
- As of March 14th, in **Bangkok the search continued for a missing cylinder** containing Caesium-137 where tests indicated it had been removed from power plant premises. See: <https://www.channelnewsasia.com/asia/missing-radioactive-cylinder-thailand-power-plant-search-caesium-137-3346151>
- On March 16th The Washington Post reported that **2.5 tons of uranium ore concentrate had been recovered in Libya** (<https://www.washingtonpost.com/world/2023/03/16/libya-uranium-missing-iaea/>).

We highlighted at H1 results (Equity Development report 31 January 2023, [H1 23 results](#)) that Kromek had announced in July 2022 a major distribution agreement with Smiths Detection Inc., for its D3 and D5 series radiation detection devices in the Americas, and subsequently into the Middle East, Asia and Australasia.

As Kromek notes, its D3S ID device can within seconds detect "radiological threats like dirty bombs, radioactive contamination, smuggling of radioactive substances and radiation at the scene of an accident or terrorist attack".

Biohazard detection

- **The latest Government overview of UK defence and security**, *Integrated Review Refresh 2023: Responding to a more contested and volatile world*, was published this month. In addition to addressing strategic threats and areas of geopolitical instability, the report highlights the task of establishing "health resilience" being undertaken by the UK Health Security Agency's Centre for Pandemic Preparedness (Updated Strategic Framework pp47).
- **As the Sunday Times Magazine** concluded just days ago on 19 March in its review of pandemic readiness, "Outbreaks are inevitable, but pandemics are optional", with the key being **early detection and containment**. The survey highlights the continual process of virological evolution and zoological transmission, with population concentration and species depletion exacerbating the risk of animal-to-human transmission, noting that "Early surveillance is crucial if pandemics are to be averted".

Kromek continues to participate in a range of bio-security programmes. In November 2022 the Group received a 3-year, £4.9m UK Government contract for the development of biological threat-detection systems. The Group maintains active engagement with UK and US authorities in areas of policy and applications, including a networked detection system for US DARPA and development of automated (and autonomous) detection of airborne pathogens.

Company Data

EPIC	KMK.L
Price (last close)	7.75p
52 weeks Hi/Lo	14.4p / 7.5p
Market cap	£34m
ED Fair Value / share	26p

Share Price, p



Source: ADVFN

Description

Kromek is a detection and advanced imaging specialist operating globally in the fields of advanced imaging and hazard detection (CBRN: chemical, biological, radiation and nuclear). Within the advanced imaging segment, medical imaging, including BMD (bone mineral density), CT (computer tomographic) and SPECT (single photon emission computer tomography), is particularly important, utilising Kromek's cadmium zinc telluride (CZT) materials technology.

Other key markets in advanced imaging include security screening and industrial imaging. Principally focused on radiation detection, CBRN also includes development of biohazard threat detection, including the presence of COVID-19.

Headquartered in Sedgefield the company has c.160 employees of whom over 100 are involved in R&D, and US operations in California and Pittsburgh. Kromek holds over 240 patents.

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Recap: H1 23 performance

We recently noted on 31 January that the key features of H1 23 performance were: revenue of £6.785m, +44.1% YoY, gross profit of £2.739m, +24.3%YoY, a 40.4% margin compared to 46.8% a year earlier, and an (adj.) EBITDA loss of £(2.666)m (H1 22: £(0.630)m loss). The loss was attributable to supply chain factors exacerbated by £0.5m US\$:GB£ currency move.

FY23 outlook remains positive

At the start of FY23, Kromek noted that it expected “**a substantial year-on-year increase in revenue**”. H1 results and prospects for the second half reaffirm this outlook, indicative of >40%YoY growth, to record revenue levels. In addition, we anticipate that the inflationary, exchange rate and supply chain pressures which impacted H1 23 profitability having stabilised will continue to ease, allowing a return to an H2 gross margin of 51.0%, indicative of 47.0% for the full year.

Forecasts and valuation reiterated

Our FY23 revenue outlook remains £18.0m +49%YoY (E), with second half (adj.) EBITDA profitability of £0.38m, and in FY24, revenue growth of 16.7%YoY, and an (adj.) EBITDA profit of just under £1.0m.

Our Fair Value is maintained at 26p/share.

Summary Financials					
Yr to 30 Apr (£m)	2020	2021	2022	2023E	2024E
Revenue	13.12	10.35	12.06	18.00	21.00
EBITDA (adj)	(1.93)	(1.69)	(1.16)	(2.28)	0.91
Pre-Tax Profit (adj)	(5.80)	(6.28)	(6.03)	(8.06)	(5.17)
EPS (adj, p)	(1.16)	(1.48)	(1.11)	(1.59)	(0.90)
Net debt / (cash)	(3.84)	(7.40)	1.38	7.81	11.05

Source: Company data. Equity Development estimates. ¹US\$ contracts at current exchange rate. ² Inclusive of one 3-year contract. EPS data is non-dilutive.

Post-H1 CBRN contract awards

- 10 November 2022.** A repeat order contract worth US\$1.3m from a US customer for the Group's D3M wearable radiation detector, taking the contract total to US\$2.6m.
- 16 November 2022.** 3-year, £4.9m contract from a UK Government department to develop and supply biological threat detection systems. There is an option to add maintenance services.
- 12 December 2022.** Two contracts totalling £1.5m - commencing immediately with revenue within FY23 - for D3M and D3S-based nuclear security detection.
- 19 December 2022.** Expansion of distribution agreement with Smiths Detection Inc., to market and distribute Kromek's wearable radiation detection and identification solutions in the Middle East and specific markets in Asia and Australasia. Kromek reported delivery of over 1,400 detectors under distribution partnership with Smiths Detection since announced in July 2022.
- 9 January 2023.** Repeat order, worth US\$0.8m, from a US government customer for the D3S ID wearable nuclear radiation detector, with delivery and revenue recognition expected within FY23.

FINANCIAL SUMMARY

Profit & Loss FY21 – FY24E						
Year-end Apr 30, £m	FY21	FY22	H1 23	H2 23E	FY23E	FY24E
Advanced Imaging		4.60	3.38	4.52	7.91	9.89
CBRN		5.40	3.16	4.57	7.73	9.14
R&D Projects		2.06	0.25	2.12	2.37	1.97
Revenue	10.35	12.06	6.79	11.22	18.00	21.00
Gross	5.01	5.64	2.74	5.72	8.46	9.93
COGS	(5.35)	(6.42)	(4.05)	(5.50)	(9.54)	(11.07)
	<i>Margin</i>	<i>48.4%</i>	<i>46.8%</i>	<i>40.4%</i>	<i>51.0%</i>	<i>47.3%</i>
Other income	0.38	1.41	0.00	0.00	0.00	0.00
Distribution	(0.29)	(0.55)	(0.32)	(0.27)	(0.59)	(0.64)
Admin	(10.94)	(12.21)	(7.63)	(7.57)	(15.20)	(13.85)
Sum Op-ex	(10.84)	(11.35)	(7.95)	(7.84)	(15.79)	(14.48)
Exceptional items	0.05	0.13	0.00	0.00	0.00	0.00
EBIT Reported	(5.79)	(5.58)	(5.21)	(2.12)	(7.33)	(4.55)
EBIT Adjusted	(5.73)	(5.48)	(5.09)	(2.00)	(7.09)	(4.31)
Amortisation	(2.36)	(2.57)	(1.47)	(1.43)	(2.89)	(3.20)
Depreciation	(1.69)	(1.75)	(0.96)	(0.95)	(1.92)	(2.03)
EBITDA Reported	(1.74)	(1.26)	(2.79)	0.26	(2.52)	0.67
EBITDA Adjusted	(1.69)	(1.16)	(2.67)	0.38	(2.28)	0.91
Financial income	0.00	0.03	0.00	0.00	0.00	0.00
Financial expense	(0.55)	(0.58)	(0.46)	(0.51)	(0.97)	(0.86)
PBT Reported	(6.33)	(6.13)	(5.67)	(2.63)	(8.30)	(5.41)
PBT Adjusted	(6.28)	(6.03)	(5.55)	(2.51)	(8.06)	(5.17)
Tax	0.98	1.21	0.60	0.60	1.20	1.30
PAT Reported	(5.35)	(4.92)	(5.07)	(2.03)	(7.10)	(4.11)
PAT Adjusted	(5.30)	(4.81)	(4.95)	(1.91)	(6.86)	(3.87)
Basic wtd. av. shares	358.9	431.9	431.9	431.9	431.9	431.9
Diluted wtd. av. shares	359.3	432.2	432.2	451.1	451.1	451.1
EPS Reported Basic (p)	(1.5)	(1.1)	(1.2)	(0.5)	(1.6)	(1.0)
EPS Adjusted Basic (p)	(1.5)	(1.1)	(1.1)	(0.4)	(1.6)	(0.9)

Source: Company data. Equity Development estimates. Diluted basis EPS not reported.

Balance sheet FY21 – FY24E

Year-end Apr 30, £m	FY21	FY22	H1 23	H2 23E	FY23E	FY24E
Goodwill net	1.28	1.28	1.28	1.28	1.28	1.28
Intangible assets	24.14	28.38	30.54	30.54	30.54	31.81
PPE net	11.20	10.94	10.80	9.76	9.76	8.34
RoU net	4.08	3.87	4.26	3.46	3.46	3.01
Fixed Assets	40.70	44.47	46.87	45.03	45.03	44.43
Inventories	6.20	10.50	10.87	8.14	8.14	7.02
Trade receivables	6.64	6.43	6.69	7.40	7.40	8.05
Tax assets	1.02	0.94	0.35	1.20	1.20	1.30
Cash, Equivalents	15.60	5.08	0.96	1.45	1.45	1.37
Current Assets	29.46	22.96	18.86	18.19	18.19	17.74
Total Assets	70.16	67.42	65.74	63.22	63.22	62.17
Trade payables	(6.17)	(7.86)	(5.99)	(7.87)	(7.87)	(8.63)
Borrowings	(5.39)	(5.72)	(5.69)	(8.53)	(8.53)	(0.69)
Leases	(0.40)	(0.38)	(0.41)	(0.41)	(0.41)	(0.41)
Current Liabilities	(11.96)	(13.95)	(12.09)	(16.81)	(16.81)	(9.74)
Total Assets less Current Liabilities	58.20	53.48	53.64	46.41	46.41	52.43
Deferred income	(1.07)	(1.13)	(1.07)	(0.80)	(0.80)	(0.40)
Leases	(4.26)	(4.16)	(4.51)	(3.46)	(3.46)	(2.76)
Borrowings	(2.82)	(0.75)	(3.57)	(0.73)	(0.73)	(11.73)
Long-term liabilities	(8.14)	(6.04)	(9.14)	(4.99)	(4.99)	(14.89)
Total liabilities	(20.10)	(19.99)	(21.23)	(21.80)	(21.80)	(24.62)
Net Assets	50.06	47.44	44.50	41.42	41.42	37.55
Share Capital	4.32	4.32	4.32	4.32	4.32	4.32
Share Premium	72.94	72.94	72.94	72.94	72.94	72.94
Capital redemption reserve	21.85	21.85	21.85	21.85	21.85	21.85
Translation reserve	0.00	2.06	4.08	3.15	3.15	4.69
Accumulated losses	(49.06)	(53.74)	(58.69)	(60.84)	(60.84)	(66.25)
Equity	50.06	47.44	44.50	41.42	41.42	37.55
Net debt / (cash)	(7.40)	1.38	8.30	7.81	7.81	11.05

Source: Company data. Equity Development estimates.

Cashflow FY21 – FY24E

Year-end Apr 30, £m	FY21	FY22	H1 23	H2 23E	FY23E	FY24E
Net profit/loss	(5.35)	(4.92)	(5.07)	(2.03)	(7.10)	(4.11)
Finance (net)	0.55	0.55	0.46	0.51	0.97	0.86
Tax	(0.98)	(1.21)	(0.60)	(0.60)	(1.20)	(1.30)
Amortisation	2.36	2.57	1.47	1.43	2.89	3.20
Depreciation	1.69	1.75	0.96	0.95	1.92	2.03
Share-based payment	0.14	0.24	0.12	0.12	0.24	0.24
Other non-cash	0.08	(1.44)	0.00	0.00	0.00	0.00
Operating Cash Flow	(1.52)	(2.47)	(2.67)	0.38	(2.28)	0.91
Working capital						
(Increase)/Decrease inventories	0.21	(4.30)	(0.36)	2.73	2.37	1.12
(Increase)/Decrease in receivables	1.57	0.22	(0.26)	(0.71)	(0.97)	(0.66)
Increase/(Decrease) in payables	(2.57)	1.74	(1.93)	1.61	(0.32)	0.36
Change working capital	(0.79)	(2.35)	(2.56)	3.63	1.08	0.82
Cash from operations	(2.31)	(4.81)	(5.22)	4.02	(1.21)	1.74
Tax (paid)/received	1.01	1.28	1.20	0.00	1.20	1.20
Net cash from operations	(1.31)	(3.53)	(4.03)	4.02	(0.01)	2.94
Investing activities						
Investments	0.00	0.00	0.00	0.00	0.00	0.00
Interest	0.00	0.03	0.00	0.00	0.00	0.00
PPE	(0.45)	(0.65)	(0.19)	(0.06)	(0.25)	(0.10)
Other intangibles	0.00	0.00	(0.04)	(0.02)	(0.06)	(0.06)
ROU	(0.16)	(0.18)	(0.04)	(0.02)	(0.06)	(0.06)
Capitalised R&D	(5.46)	(5.62)	(2.58)	(2.42)	(5.00)	(4.40)
Net cash used in investing	(6.07)	(6.42)	(2.85)	(2.52)	(5.37)	(4.62)
Net OpFCF	(7.38)	(9.95)	(6.87)	1.49	(5.38)	(1.68)
Financing activities						
Shares (net)	12.22	0.00	0.00	0.00	0.00	0.00
Borrowings short-term	0.00	0.00	0.50	2.84	3.34	0.00
Borrowings short-term repaid	0.00	0.00	(0.52)	0.00	(0.52)	(7.84)
Borrowings long-term	3.22	0.76	3.34	(2.84)	0.50	11.00
Borrowings long-term repaid	(0.60)	(1.34)	(0.52)	0.00	(0.52)	0.00
Leases	(0.40)	(0.65)	(0.35)	(0.35)	(0.70)	(0.70)
Interest	(0.31)	(0.34)	(0.33)	(0.64)	(0.97)	(0.86)
Net cash from financing	14.13	(1.57)	2.12	(1.00)	1.12	1.60
Net change in cash	6.75	(11.51)	(4.75)	0.50	(4.26)	(0.08)
Cash at start of year	9.44	15.60	5.08	0.96	5.08	1.45
Forex	(0.59)	0.99	0.63	0.00	0.63	0.00
Cash at period-end	15.60	5.08	0.96	1.45	1.45	1.37
Net debt / (cash)	(7.40)	1.38	8.30	7.81	7.81	11.05

Source: Company data. Equity Development estimates.



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