kromek
detect image identify

2 August 2022

Kromek Group plc
("Kromek" or the "Company" or the "Group")

Final Results

Kromek (AIM: KMK), a leading developer of radiation and bio-detection technology solutions for the advanced imaging and CBRN detection segments, announces its final results for the year ended 30 April 2022.

Financial Highlights

- Revenue increased 16% to £12.1m (2021: £10.4m)
- Gross margin was 46.7% (2021: 48.4%)
- Adjusted EBITDA loss reduced to £1.2m (2021: £1.7m loss)*
- Loss before tax reduced to £6.1m (2021: £6.3m loss)
- Cash and cash equivalents at 30 April 2022 were £5.1m (30 April 2021: £15.6m)

**A reconciliation of adjusted EBITDA can be found in the Financial Review.*

Operational Highlights

Advanced Imaging

- Strong revenue growth with delivery under component supply agreements and increased customer engagement for future projects
- Sustained delivery in medical imaging:
  - Ramp up in delivery continued as planned under medical imaging contract expected to be worth US$58.1m over the seven-year life of the contract that was awarded in 2019
  - Completed delivery of a US$600k order from an OEM customer for detectors to be used in niche SPECT applications, with further orders expected
  - Commenced commercial development engagement with three new strategic OEM customers
- In security screening, the Group completed a two-year US$1.6m project with the US Department of Homeland Security and entered two new commercial development engagements with OEMs
- Signed a seven-year supply agreement, worth up to US$17m, in industrial screening with a US-based OEM and secured a US$250k repeat order from a US-based aerospace and defence company

CBRN Detection

- Significant momentum in nuclear security, with the winning of new and repeat orders and participation in a greater number of tenders reflecting the growth in global government defence spending:
  - Awarded a two-year contract, worth up to US$1.6m, by a US federal entity for the D3S-ID wearable nuclear radiation detector – with a further US$300k order received during the year and US$695k post year end
  - Repeat orders received from the European Commission for the D3S-ID
  - Received orders from three customers for the D5 RIID
  - A four-year contract worth £1.7m was received from a UK government agency customer for CBRN detection products and services
  - Invested in developing new channels to market, including the signing, post year end, of a distribution agreement with Smiths Detection Inc. for the North and South American markets
- 32 new customers won in the civil nuclear segment
- Significant progress in the development of bio-security solutions:
  - Awarded a US$6m contract extension from the Defense Advanced Research Projects Agency ("DARPA"), an agency of the US Department of Defense, to advance the development of a mobile wide-area bio-security system
  - Successfully completed piloting in schools, airports and other locations of an airborne COVID-19 detection system under a project funded by Innovate UK and commenced productisation phase

Procurement, Manufacturing and IP

- Measures implemented to strengthen supply chain, including procurement team expansion and establishing strategic relationships with suppliers
- Increased utilisation of expanded production capacity in the UK and US facilities following enhancement to manufacturing processes in the prior year
- 8 new patents were filed and 9 were granted during the year

Dr Arnab Basu, CEO of Kromek, said: "We are pleased to report a year of good progress as we delivered on existing contracts and development programmes in both the advanced imaging and CBRN detection segments. Our revenues grew by 16% compared to the previous year as we saw increased commercial traction, particularly in the CBRN segment, and ended the year in a better position than we began it.

"Looking ahead, we entered the new financial year with a higher order book than the previous year and the highest level of revenue visibility in our history. The current geopolitical environment is driving greater interest from government agencies for our CBRN family of products and in advanced imaging we are experiencing heightened engagement with OEMs due to our strategic position as the only commercial independent global supplier of CZT. Consequently, for FY 2023 we anticipate substantial year-on-year revenue growth and we look forward to the future with increased confidence."

For further information, please contact:

Kromek Group plc	
Arnab Basu, CEO	+44 (0)1740 626 060
Paul Farquhar, CFO	
finnCap Ltd (Nominated Adviser and Broker)	
Geoff Nash/Kate Bannatyne/George Dollemore - Corporate Finance	+44 (0)20 7220 0500
Tim Redfern/Charlotte Sutcliffe - ECM	
Luther Pendragon (Financial PR)	
Harry Chathli/Claire Norbury	+44 (0)20 7618 9100

About Kromek Group plc

Kromek Group plc is a leading developer of radiation detection and bio-detection technology solutions for the advanced imaging and CBRN detection segments. Headquartered in County Durham, UK, Kromek has manufacturing operations in the UK and US, delivering on the vision of enhancing the quality of life through innovative detection technology solutions.

The advanced imaging segment comprises the medical (including CT and SPECT), security and industrial markets. Kromek provides its OEM customers with detector components, based on its core cadmium zinc telluride (CZT) platform, to enable better detection of diseases such as cancer and Alzheimer's, contamination in industrial manufacture and explosives in aviation settings.

In CBRN detection, the Group provides nuclear radiation detection solutions to the global homeland defence and security market. Kromek's compact, handheld, high-performance radiation detectors, based on advanced scintillation technology, are primarily used to protect critical infrastructure and urban environments from the threat of 'dirty bombs'.

The Group is also developing bio-security solutions in the CBRN detection segment. These consist of fully automated and autonomous systems to detect a wide range of airborne pathogens.

Kromek is listed on AIM, a market of the London Stock Exchange, under the trading symbol 'KMK'.

Further information is available at www.kromek.com.

Operational Review

During the year to 30 April 2022, Kromek made good progress in both the advanced imaging and chemical, biological, radiological, and nuclear (CBRN) detection segments of the business. Kromek delivered on its existing contracts and development programmes, won new and repeat orders and experienced increased customer engagement regarding future contracts. This resulted in revenue for FY 2022 increasing by 16% over the previous year, with commercial momentum increasing throughout the year, particularly in the CBRN detection segment. The Group also continued to increase utilisation of the expanded production capacity that it had gained through the processes introduced in the previous year to optimise manufacturing across its facilities. Accordingly, and notwithstanding the impact of supply chain pressures as described further below, Kromek ended the year in a stronger position than it had entered it.

Advanced Imaging Segment

The advanced imaging segment comprises the medical imaging, security screening and industrial screening markets. Kromek provides OEM customers with detector components, based on its core cadmium zinc telluride (CZT) platform, to enable better detection of diseases such as cancer and cardiac conditions, contamination in industrial manufacture and explosives in aviation settings.

In this segment, commercial engagement with customers consists of an initial design phase followed by incorporation of the Group's detectors and technologies into a customer's system and then the award of a multi-year supply contract, which provides long-term revenue visibility. The Group has an established track record of winning orders for development purposes that transition to multi-year supply contracts from customers in gamma probes, bone mineral densitometry ("BMD") and single photon emission computed tomography ("SPECT") in medical imaging as well as in security and industrial screening. This success is evidenced by the significant contracts awarded in H2 2019 in medical imaging and also in the year under review in industrial imaging, which are expected to be worth approximately US$58.1m and US$17m, respectively. As Kromek continues to win such contracts, its revenue base expands and the revenue profile becomes increasingly predictable.

Kromek delivered strong growth in this segment compared with the 2021 financial year as the Group continued to deliver detector components to its customers under orders for development purposes and multi-year supply contracts. The Group also experienced greater customer engagement regarding future projects as normal business has resumed following the temporary redirection of resources due to the COVID-19 pandemic.

Medical Imaging

In recent years, leading OEMs in medical imaging have been increasingly adopting CZT detector platforms as the enabling technology for their product roadmaps. The rate of new product introduction with this class of detector is increasing with both GE Healthcare and Siemens Healthineers introducing new products in their clinical SPECT and CT business in 2021. CZT detector platforms enable OEMs to significantly improve the quality of imaging, which leads to earlier and more reliable diagnosis of disease. Kromek's CZT detector solutions are increasingly being commercially adopted for SPECT, molecular breast imaging ("MBI") and BMD applications. These, along with computed tomography ("CT"), are key target areas for future growth as they address diseases particularly associated with an ageing population such as cancer, Alzheimer's, Parkinson's, cardiovascular illnesses and osteoporosis. Kromek also serves the gamma probes market in medical imaging, which are used during surgery for the removal of lymph nodes.

The Group continued to fulfil its existing supply orders in medical imaging and progress its development programmes. Delivery continued to ramp up as planned to a significant OEM customer that, in H2 2019, awarded a contract expected to be worth a minimum of US$58.1m over an approximately seven-year period. In addition, the Group continued delivery of a US$600k order received in H2 2021 from a different customer for the supply of detectors to be used in niche SPECT applications. This delivery was completed by the end of the 2021 calendar year as planned and the Group expects to continue the supply of detectors to this longstanding customer with new orders in the current year.

There was a significant increase in new business activity as the impact of the pandemic – which had caused a temporary redirection of resources in healthcare settings – continued to recede. This applied particularly in the Group's key target areas of CT and SPECT, supported by the growing industry adoption of new techniques and rollout of new systems. The Group commenced commercial development engagement with three new strategic OEM customers in this market. These initial orders are for the supply of CZT-based detectors for use by the OEM customers in their commercial development programmes.

One of the Group's US medical imaging customers received FDA approval for its system for a niche nuclear medical application, which is using Kromek's detectors. The Group has received several orders from this customer, which the Group expects to continue on an ongoing basis.

Security Screening

In security screening, Kromek's technologies are used in travel, primarily aviation, settings to enable its customers to meet the high-performance standards they require, and as demanded by regulatory bodies, to ensure passenger safety while increasing the convenience and efficiency of the security process. The Group provides OEM and government customers with components and systems for cabin and hold luggage scanning.

During the year, the Group continued to deliver under its existing component supply agreements in the security screening market. In its development work, the Group completed a two-year US$1.6m project funded by the US Department of Homeland Security for a CZT detector platform for threat resolution for hold baggage, hand baggage and cargo screening systems. The Group expects commercial adoption and integration of this platform in multiple commercial advanced baggage screening products. The Group also entered two new commercial development engagements during the year to customise its detector solutions for incorporation into OEM customers' systems. This development process has been completed with one of the customers and the customised detectors have been delivered to the customer, and the Group expects to receive further orders from this customer.

Industrial Screening

In industrial screening, Kromek provides OEM customers with detector components for incorporating into scanning systems used during manufacturing processes to identify potential contaminants.

During the year, the Group signed a seven-year supply agreement, worth up to US$17m, to provide CZT-based detector components for incorporation into systems for identifying contaminants for the purpose of product quality inspection. The contract is with a US-based, sector-leading industrial OEM with a global customer base and was awarded following the completion of a two-year development programme. Initial delivery under this contract commenced during the year and is expected to ramp up in the current financial year.

Also, during the year, the Group was awarded a US$250k repeat order from a US-based customer that is a global leader in aerospace and defence technologies. The customer's system, which incorporates Kromek detectors, is used for in-line quality control in manufacturing processes.

CBRN Detection Segment

In CBRN detection, Kromek provides nuclear radiation detection solutions to the global homeland defence and security market. Kromek's compact, handheld, high-performance radiation detectors, based on advanced scintillation technology, are primarily used to protect critical infrastructure and urban environments from the threat of 'dirty bombs'. The Group's portfolio also includes a range of high-resolution detectors and measurement systems used for civil nuclear applications, primarily in nuclear power plants and research establishments. In addition, Kromek is developing bio-security solutions to detect a wide range of airborne pathogens, including SARS-CoV-2 (COVID-19).

The Group won new and repeat orders in the nuclear security and civil nuclear markets during the year and participated in an increasing number of tenders reflecting the growth in global government defence spending. With the current geo-political environment, the commercial momentum in this market increased during the fourth quarter and has remained high into the current financial year. Kromek also made significant progress with its development programmes in bio-security and anticipates early commercial deployment of its products in this segment during the current financial year.

Nuclear Security

Kromek's nuclear security platforms – D3S and D5 – consist of a family of products designed to cater for the varying demands of homeland security and defence markets. In particular, the D3S platform is widely deployed as a networked solution to protect cities, buildings or critical infrastructure against the threat of use of nuclear 'dirty bombs' by terrorists.

The Group was awarded a contract by a US federal entity for its D3S-ID wearable nuclear radiation detector that is designed to enable first responders, armed forces, border security and other CBRN experts to detect radiological threats. The contract will be delivered over two years and is worth up to US$1.6m. In the final quarter of the year, this customer made a repeat order worth US$300k and then a further order post year end of US$695k. The Group also continued to receive repeat orders from the European Commission for the D3S-ID.

During the year, the Group received orders from three customers for its D5 RIID high-performance radiation detector designed for challenging environments, which was launched in the previous year. This included an order worth £173k from an existing UK government agency customer and orders from two new customers. As further testament to the strength of both its solutions and long-term relationships, towards the end of the year, the UK government agency customer awarded a further four-year contract worth £1.7m for the provision of CBRN detection products and services.

The Group has put significant effort into developing new channels in this market and are seeing increased traction for its products. This includes entering into an agreement, post year end, with Smiths Detection to market and distribute its D3 and D5 series of wearable radiation detectors and identification solutions to North and South American markets. The current geopolitical events have provided an increased emphasis for government spending in this segment as NATO countries are all increasing their defence budgets. The threat of a nuclear event is also at an all-time high since the end of the cold war. Kromek's products provide best-in-class capability to provide early warning and mitigation capability in case of an event.

Civil Nuclear

In the civil nuclear market, the Group won 32 new customers during the year compared with 24 for 2021. Kromek continued its programme of work under a development and supply contract awarded in the previous financial year, worth a minimum of US$960k, which is for a product with both nuclear security and civil nuclear applications. The project is progressing on schedule, with the development work being completed by the end of calendar year 2021 and the product is now in the validation phase ahead of the commencement of supply, which is expected to start in the current financial year.

Biological-Threat Detection

Kromek is developing bio-security solutions consisting of fully automated and autonomous systems to detect a wide range of airborne pathogens using genomic sequencing for the purposes of national security and protecting public health. Since H2 2019, the Group has been working with DARPA, an agency of the US Department of Defense, to develop a biological-threat detection system that autonomously senses, analyses and identifies airborne pathogens. The programme was established to combat bioterrorism and is now also aimed at providing an early warning system in the event of a virus outbreak to enable action to be taken to localise the spread and prevent it from becoming an epidemic or global pandemic. The Group is also working under a programme funded by Innovate UK, which commenced in 2021, to develop a bio-security solution to support end-use cases specifically for COVID-19 detection.

During the year, Kromek continued to deliver on the development milestones under its programme with DARPA and received a US$6m contract for the next phase. The programme is for the development of a completely automated wide spectrum airborne pathogen detection system that is fully mobile and runs autonomously. It is being designed to be networkable and provide wide-area monitoring capability in near real-time. To date, the Group have been awarded a total of over US$13m by DARPA under this programme.

Several successful pilots were carried out for the fully automated genomic sequencing platform in the UK and US. During the year the Group published a white paper outlining the challenges the world faces from the emergence of natural and synthetic pathogens. The main recommendations of the white paper include the implementation of a national network of automated genomic sequencing systems. These systems can provide an early warning alert for the emergence and understanding of the prevalence of pathogens in the environment, and this has been fed into a government consultation process led by the Cabinet Office, which is aimed at forming a national strategy for bio resilience and bio security for the UK. The initial findings are very well aligned to the Group's platform, and it continues to work with multiple government agencies to define use cases and widescale implementation opportunities.

Under Kromek's programme funded by Innovate UK to develop a solution for airborne COVID-19 detection, it successfully completed piloting of the system at several sites, including schools, airports and other locations. The solution is now in the productisation phase, with a manufacturing partner having been identified and a number of pre-production models also having been produced. Further, the Group engaged in validation of the technology in third-party laboratories with very positive results on the detection levels, sensitivity and false alarm rates.

Procurement

As previously stated, growth was impeded during the year by supply chain pressures, particularly global electronic component shortages. Specifically, the late arrival of certain components prevented the completion of orders totalling approximately £2.9m that were scheduled to be delivered before the year end. These orders have now begun to be shipped and the revenue is expected to be largely recognised in the first half of the current financial year.

Several steps were taken during the year to strengthen Kromek's supply chain so that the Group is better positioned to be able to manage such pressures going forward. As discussed in the Chief Financial Officer's Review, inventories increased with components being sourced when available rather than in accordance with what had previously been the normal supply lead times. The Group bolstered its procurement team during the year and have transitioned buying cycles to accommodate the current longer lead supply times. This has significantly helped management, enabling greater visibility over orders. In addition, Kromek has widened and strengthened its supplier base through establishing an increased number of strategic, rather than transactional, relationships with key suppliers.

R&D, IP and Manufacturing

Kromek continues to ramp up several projects that commenced in 2021 for the expansion of production capacity and increased process automation. These programmes are resulting in greater productivity and cost efficiency in the manufacture of CZT and non-CZT products in both the Group's UK and US facilities.

Kromek is focused on developing the next generation of products for commercial application in its core markets. As noted, during the year the Group continued to advance development programmes with a number of partners and, in particular, significantly progressed the development of its biological-threat detection solution.

During the year, the Group applied for 8 new patents and had 9 patents granted across three patent families, bringing the total number of patents held by Kromek to in excess of 250. The new applications cover innovations in both of Kromek's segments.

Financial Review

Revenue

The Group generated total revenue of £12.1m (2021: £10.4m), an increase of 16% over the prior year. However, growth was impeded, as noted above, by global supply chain issues. The split between product sales and revenue from R&D contracts is detailed in the table below.

Revenue Mix	**2022**		**2021**	
	£'000	**% share**	**£'000**	**% share**
Product	9,935	82%	5,836	56%
R&D	2,120	18%	4,516	44%
Total	**12,055**		**10,352**	

Gross Margin

Gross profit at £5.6m (2021: £5.0m) represented a margin of 46.8% (2021: 48.4%). The slight reduction in gross margin is attributable to the change in revenue mix and the increase in component prices due to supply chain pressures.

Administration Costs

Administration costs and operating expenses increased by £1.3m to £12.2m (2021: £10.9m). This increase is substantially the net result of:

- £0.2m of amortisation due to continued investment in the technology platform and product applications;
- £0.5m bad debt expense having assessed receivables at the year end for expected credit losses;
- a £0.2m increase in travel and subsistence due to the global relaxation of travel restrictions;
- a £0.5m increase in staff costs due to general salary increases and the planned expansion of personnel to support the biological detection project; and
- savings of £0.1m relating to facility and general office expenses.

Adjusted EBITDA* and Result from Operations

Adjusted EBITDA for 2022 was a loss of £1.2m compared with a loss of £1.7m for the prior year as set out in the table below:

	2022	**2021**
	£'000	**£'000**
Revenue	12,055	10,352
Gross profit	5,636	5,006
Gross margin (%)	*46.7%*	*48.4%*
Loss before tax	(6,129)	(6,331)
***EBITDA* Adjustments:**		
Net interest	548	546
Depreciation of PPE and right-of-use assets	1,751	1,685
Amortisation	2,569	2,359
Share-based payments	236	106
Exceptional Item	(132)	(52)
Adjusted EBITDA*	**(1,157)**	**(1,687)**

**Adjusted EBITDA is defined as earnings before interest, taxation, depreciation, amortisation, exceptional items, early settlement discounts and share-based payments. Share-based payments are added back when calculating the Group's adjusted EBITDA as this is currently an expense with no direct cash impact on financial performance. Adjusted EBITDA is considered a key metric to the users of the financial statements as it represents a useful milestone that is reflective of the performance of the business resulting from movements in revenue, gross margin and the costs of the business.*

The Group's loss before tax was reduced to £6.1m compared with £6.3m in the prior year. The improvement is primarily due to the increase in gross profit and higher other operating income as described below, partially offset by the increase in operating costs.

During 2022, the Group recognised a gain of £2.1m (2021: £2.0m loss) in the statement of other comprehensive income that arose from foreign exchange differences on the translation of foreign operations as described in note 2 to the financial statements. This gain has been treated as a reserve movement, consistent with the prior year. This accounting treatment is unlike the £0.2m foreign exchange loss arising on the revaluation and realisation of working capital balances that were expensed to the profit and loss account during the year.

Tax

The Group continues to benefit from the UK Research and Development Tax Credit regime as it invests in developments of technology. The Group recorded an R&D credit of £0.9m for the year (2021: £1.0m credit) arising from the option of surrendering tax losses in the year that qualify for cash credit, rather than carrying forward the tax losses to set against future taxable profits. The Group's deferred tax provision for the year remained static at £nil (2021: £nil) due to the distribution of losses between the UK and US operations, and accordingly there was a total tax credit to the income statement for the Group of £1.2m (2021: £1.0m credit).

Earnings per Share ("EPS")

The EPS is recorded in the year on a basic and diluted basis as 1.1p loss per share (2021: 1.5p loss per share after excluding exceptional items), reflecting the £0.4m reduction in loss for the period.

R&D

The Group invested £5.6m in the year (2021: £5.5m) in technology and product developments that were capitalised on the balance sheet, reflecting the continuing investment in new products, applications and platforms for the future growth of the business. This expenditure was capitalised in accordance with IAS38 to the extent that it related to projects in the later stage (development phase) of the project lifecycle.

The Group continues to advance its development roadmap in relation to the automated wide-area detection of biological and viral pathogens, involving portable DNA sequencing. It is the Board's belief that this technology platform, which enables the identification of COVID-19 and other biological pathogens, offers significant medium-term opportunities for the Group in this critical market.

The other key areas of development continue to be the development and expansion of the D5 suite of products and the SPECT platforms. All such investments in research and development are linked to contract deliverables and, in the Board's belief, add to the significant future revenue opportunities that the Group's technology offers. The Group continues to undertake this investment to strengthen its commercial advantage.

During the year, the Group undertook expenditure on patents and trademarks of £0.2m (2021: £0.2m) with 8 new patents filed and 9 patents granted across 3 patent families.

Other Income
The Group generated total other operating income of £1.4m (2021: £0.4m), which predominantly comprises the forgiveness of Paycheck Protection Programme (PPP) loans in the US. The Group had been granted PPP loans totalling US$1.8m (£1.4m) in the prior year and, during the period under review, applied for, and received, forgiveness for repayment from the US Government. In the prior year period, £0.3m of the £0.4m of other operating income comprised UK Government grants in response to COVID-19. The balance of remaining other operating income relates to grants received from the Coronavirus Job Retention Scheme provided by the UK Government in response to COVID-19's economic impact on businesses and other small miscellaneous grants.

Capital Expenditure
Capital expenditure in the year amounted to £0.7m (2021: £0.5m), which primarily relates to modest capital expenditure across lab and computer equipment and manufacturing projects.

Financing Activities
The Group's US operations secured an Economic Injury Disaster Loan of £0.4m in August 2021.

Cash Balance
Cash and cash equivalents were £5.1m as of 30 April 2022 (30 April 2021: £15.6m). The £10.5m decrease in cash during 2022 was primarily due to the combination of the following:

- Adjusted EBITDA loss for the year of £1.2m, which includes the PPP loan forgiveness of £1.4m
- Net cash used in financing activities of £1.6m
- A net increase in working capital of £4.8m
- R&D tax receipts of £1.3m
- Investment in product development and other intangibles, with capitalised development costs of £5.6m and IP additions of £0.2m
- Capital expenditure of £0.7m
- Impact of foreign exchange of £1.0m

Working capital increased by £4.8m as a result of the following:

- A £4.3m increase in inventories held on 30 April 2022 to £10.5m (30 April 2021: £6.2m). This increase was primarily in order to secure surety of critical electronic components for delivery of FY 2023 revenues in response to supply chain pressures. As such, the Group sourced component inventory when available, rather than in accordance with normal supply lead times. There was significant component price inflation caused by the constrained market supply, which also contributed to the increased spend on inventories;
- £0.2m decrease in trade and other receivables, reflecting the timing of receipts; and
- a £1.7m increase in trade and other payables to £8.9m (2021: £7.2m) due to the timing of invoicing around the year end.

Outlook

Kromek has had a positive start to the new financial year with a significantly larger order book than at the same point last year and the highest level of revenue visibility in its history. The Group has excellent visibility over full year revenue forecasts with approximately 53% of its forecast revenue contracted, 37% going through contract negotiation and the remaining 10% expected to be provided by its regular repeat order business.

As a result, the Group anticipates a substantial year-on-year increase in revenue, in line with market expectations, with accelerated growth in both its advanced imaging and CBRN detection segments.

The anticipated growth is based on delivery under existing long-term contracts, new orders won last year and the sustained demand being received for Kromek’s products. In particular, the current geopolitical environment is driving increased interest from government agencies in Kromek's products in the CBRN detection segment. In advanced imaging, Kromek's CZT-based products continue to be in high demand from both existing and new OEM customers.

The Group continues to maintain tight cost control, improve collections and manage cash flow. The Group is also effectively managing its supply chain and the current challenges around obtaining critical components. The high revenue visibility for the current year means the Group can manage its inventories efficiently and avoid potential delays in the delivery of orders.

Looking further ahead, Kromek is operating in multiple substantial markets where its technology enables the Group’s advanced imaging customers to differentiate their products, forming an important part of the roadmap of major OEMs, and allowing its CBRN detection customers to enhance national defence. The demand for technology that enables early medical diagnosis to improve patient outcomes and government vigilance to the threat of terrorism will continue. In addition, its strategic position in the advanced imaging segment was significantly strengthened during the year with Kromek becoming the only commercial independent global supplier of CZT. Consequently, the Board continues to look to the future with great confidence.

Kromek Group plc
Group statement of comprehensive income
For the year ended 30 April 2022

	Note	2022 £'000	2021 £'000
Continuing operations			
Revenue	3	**12,055**	10,352
Cost of sales		**(6,419)**	(5,346)
Gross profit		**5,636**	5,006
Other operating income	4	**1,410**	379
Distribution costs		**(551)**	(287)
Administrative expenses		**(12,208)**	(10,935)
Operating loss (before exceptional items)		**(5,713)**	(5,837)
Exceptional impairment reversal on trade receivables and amounts recoverable on contracts	7	**132**	52
Operating results (post exceptional items)		**(5,581)**	(5,785)
Finance income		**34**	2
Finance costs		**(582)**	(548)
Loss before tax	5	**(6,129)**	(6,331)
Tax	8	**1,211**	978
Loss for the year from continuing operations		**(4,918)**	(5,353)
Loss for the year from continuing operations (before exceptional items)		**(5,050)**	(5,405)
Loss per share	9		
- basic (p)		**(1.1)**	(1.5)

The notes form part of these financial statements.

Kromek Group plc
Group statement of other comprehensive income
For the year ended 30 April 2022

	2022 £'000	2021 £'000
Loss for the year	**(4,918)**	(5,353)
Items that are or may be subsequently reclassified to profit or loss:		
Exchange differences on translation of foreign operations	**2,063**	(1,981)
Total comprehensive loss for the year	**(2,855)**	(7,334)

The notes form part of these financial statements.

Kromek Group plc
Consolidated statement of financial position
As at 30 April 2022

	Note	2022 £'000	2021 £'000
Non-current assets			
Goodwill	10	**1,275**	1,275
Other intangible assets	11	**28,375**	24,144
Property, plant and equipment	12	**10,944**	11,200
Right-of-use assets		**3,874**	4,076
		44,468	40,695
Current assets			
Inventories	13	**10,503**	6,202
Trade and other receivables		**6,429**	6,644
Current tax assets		**942**	1,015
Cash and bank balances		**5,081**	15,602
		22,955	29,463
Total assets		**67,423**	70,158
Current liabilities			
Trade and other payables		**(7,855)**	(6,174)
Borrowings	14	**(5,716)**	(5,387)
Lease obligation		**(375)**	(399)
		(13,946)	(11,960)
Net current assets		**9,009**	17,503
Non-current liabilities			
Deferred income		**(1,131)**	(1,071)
Lease obligation		**(4,161)**	(4,256)
Borrowings	14	**(749)**	(2,816)
		(6,041)	(8,143)
Total liabilities		**(19,987)**	(20,103)
Net assets		**47,436**	50,055
Equity			
Share capital		**4,319**	4,319
Share premium account		**72,943**	72,943
Merger reserve		**21,853**	21,853
Translation reserve		**2,063**	-
Accumulated losses		**(53,742)**	(49,060)
Total equity		**47,436**	50,055

The notes form part of these financial statements.

Kromek Group plc
Consolidated statement of changes in equity
For the year ended 30 April 2022

	Share capital £'000	Share premium account £'000	Merger reserve £'000	Translation reserve £'000	Retained losses £'000	Total equity £'000
Balance at 1 May 2020	**3,446**	**61,600**	**21,853**	**1,981**	**(43,813)**	**45,067**
Loss for the year	-	-	-	-	(5,353)	(5,353)
Exchange difference on translation of foreign operations	-	-	-	(1,981)	-	(1,981)
Total comprehensive loss for the year	-	-	-	(1,981)	(5,353)	(7,334)
Issue of share capital	873	-	-	-	-	873
Premium on shares issued less expenses	-	11,343	-	-	-	11,343
Credit to equity for equity-settled share-based payments	-	-	-	-	106	106
Balance at 30 April 2021	**4,319**	**72,943**	**21,853**	**-**	**(49,060)**	**50,055**
Loss for the year	-	-	-	-	(4,918)	(4,918)
Exchange difference on translation of foreign operations	-	-	-	2,063	-	2,063
Total comprehensive loss for the year	-	-	-	2,063	(4,918)	(2,855)
Credit to equity for equity-settled share-based payments	-	-	-	-	236	236
Balance at 30 April 2022	**4,319**	**72,943**	**21,853**	**2,063**	**(53,742)**	**47,436**

The notes form part of these financial statements.

Kromek Group plc
Consolidated statement of cash flows
For the year ended 30 April 2022

	Note	2022 £'000	2021 £'000
Net cash used in operating activities	15	**(3,530)**	(1,309)
Investing activities			
Interest received		**34**	2
Purchases of property, plant and equipment		**(651)**	(454)
Purchases of patents and trademarks		**(179)**	(156)
Capitalisation of development costs		**(5,619)**	(5,463)
Net cash used in investing activities		**(6,415)**	(6,071)
Financing activities			
Net proceeds on issue of shares		**-**	12,216
New borrowings		**760**	3,215
Payment of borrowings		**(1,340)**	(595)
Payment of lease liability		**(646)**	(395)
Interest paid		**(340)**	(309)
Net cash (used in)/generated from financing activities		**(1,566)**	14,132
Net (decrease)/increase in cash and cash equivalents		**(11,511)**	6,752
Cash and cash equivalents at beginning of year		**15,602**	9,444
Effect of foreign exchange rate changes		**990**	(594)
Cash and cash equivalents at end of year		**5,081**	15,602

The notes form part of these financial statements.

Kromek Group plc
Notes to the consolidated financial statements
For the year ended 30 April 2022

1. General information

Kromek Group plc is a company incorporated and domiciled in the United Kingdom under the Companies Act 2006. These financial statements are presented in pounds sterling because that is the currency of the primary economic environment in which the Group operates. Foreign operations are included in accordance with the policies set out in note 2.

The Group prepares its consolidated financial statements in accordance with UK-adopted IFRS.

The Board is currently evaluating the impact of the adoption of all other standards, amendments and interpretations but does not expect them to have a material impact on the Group's operation or results.

2. Significant accounting policies

Basis of preparation

The Group's financial statements have been prepared in accordance with IFRS and International Financial Reporting Interpretations Committee ("IFRIC").

The financial statements have been prepared on the historical cost basis modified for assets recognised at fair value on acquisition. Historical cost is generally based on the fair value of the consideration given in exchange for the assets. The principal accounting policies adopted are set out below.

Basis of consolidation

The consolidated financial statements incorporate the results and net assets of the Group and entities controlled by the Group (its subsidiaries) made up to 30 April each year. Control is achieved where the Group has the power to govern the financial and operating policies of an investee entity so as to obtain benefits from its activities.

The results of subsidiaries acquired during the year are included in the consolidated income statement from the effective date of acquisition or up to the effective date of disposal, as appropriate. Where necessary, adjustments are made to results of subsidiaries to bring the accounting policies used into line with those used by the Group. All intra-Group transactions, balances, income and expenses, and profits are eliminated on consolidation.

Going concern

As at 30 April 2022, the Group had net current assets of £9.0m (30 April 2021: £17.5m) and cash and cash equivalents of £5.1m (30 April 2021: £15.6m) as set out in the consolidated statement of financial position. The Group made a loss before tax of £6,129k in the year (2021: £6,331k).

The Directors have prepared detailed forecasts of the Group's financial performance over the next twelve months from the date of this report. Given the rapidly changing macroeconomic landscape and the Group's forecast financial performance for the next twelve months, management also prepared a financial forecast based on a sensitised and severe but plausible scenario. It should be noted that in each scenario, the Board has specifically excluded any significant upsides from these scenarios or mitigating cost reductions.

The forecasts prepared by the Directors indicate that the Group will breach its net debt:EBITDA bank covenant during the forecast period. In response to these potential breaches, the Board has negotiated with HSBC that the Group shall not be required to ensure compliance with this leverage covenant up to and including the January 2023 quarterly compliance review. As this waiver is conditional at the date of signing this report, should the condition not be met, it would result in the early repayment of the outstanding bank debt. The conditional nature of the bank waiver gives rise to an event which may cast significant doubt over the Group's ability to continue as a going concern. The Directors are comfortable that the conditions will be met, and acknowledge if they are not met, there is sufficient mitigation due to the Group having various ongoing fundraising opportunities at its disposal. The Directors consider it to be almost certain that sufficient financial support could be raised from one or more of these opportunities to repay the bank in the unlikely instance that the condition of the bank waiver is not met.

In both the original and the severe but plausible scenario forecasts, there is an assumption that additional financing will be available to the Group. The requirement for future funding results in conditions that may cast significant doubt over the Group's ability to continue as a going concern. The Board is exploring a number of such opportunities that are available, and has concluded that it is almost certain the required mitigating financing will be secured. As a consequence, the Board is confident that the Group will have sufficient resources and working capital to meet its present and foreseeable obligations for a period of at least twelve months from approval of these financial statements. Accordingly, the Board continues to adopt the going concern basis in preparing the Group financial statements.

Business combinations

The Group financial statements consolidate those of the Company and its subsidiary undertakings. Subsidiaries are entities controlled by the Group. Control exists when the Group has the power, directly or indirectly, to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, potential voting rights that are currently exercisable or convertible are taken into account. The financial information of subsidiaries is included from the date that control commences until the date that control ceases. Intra-Group balances and transactions, and any unrealised income and expenses arising from intra-Group transactions, are eliminated in preparing the consolidated financial information.

Acquisitions on or after 1 May 2010

For acquisitions on or after 1 May 2010, the Group measures goodwill at the acquisition date as:

- the fair value of the consideration transferred; plus
- the recognised amount of any non-controlling interests in the acquiree; plus
- the fair value of the existing equity interest in the acquiree; less
- the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

When the excess is negative, the negative goodwill is recognised immediately in profit or loss.

Costs related to the acquisition, other than those associated with the issue of debt or equity securities, are expensed as incurred.

Goodwill

Goodwill arising in a business combination is recognised as an asset at the date that control is acquired (the acquisition date). Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest (if any) in the entity over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed.

If, after reassessment, the Group's interest in the fair value of the acquiree's identifiable net assets exceeds the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

Goodwill is not amortised but is reviewed for impairment at least annually. For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units expected to benefit from the synergies of the combination. Cash-generating units to which goodwill has been allocated are tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata on the basis of the carrying amount of each asset in the unit. An impairment loss recognised for goodwill is not reversed in a subsequent period.

On disposal of a subsidiary, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

Contracts with customers

The Group recognises revenue in line with IFRS 15 ‘Revenue from contracts with customers’. Revenue represents income derived from contracts for the provision of goods and services by the Group to customers in exchange for consideration in the ordinary course of the Group’s activities.

The Board disaggregates revenue by sales of goods or services, grants and contract customers. Sales of goods and services typically include the sale of product on a run rate or ad-hoc basis. Grants include technology development with parties such as Innovate UK as detailed above. Customer contracts represents agreements that the Group has entered into that typically span a period of more than 12 months.

Performance obligations

Upon approval by the parties to a contract, the contract is assessed to identify each promise to transfer either a distinct good or service or a series of distinct goods or services that are substantially the same and have the same pattern of transfer to the customer. Goods and services are distinct and accounted for as separate performance obligations in the contract if the customer can benefit from them either on their own or together with other resources that are readily available to the customer, and they are separately identifiable in the contract.

Transaction price

At the start of the contract, the total transaction price is estimated as the amount of consideration to which the Group expects to be entitled in exchange for transferring the promised goods and services to the customer, excluding sales taxes. Variable consideration, such as price escalation and early settlements, is included based on the expected value or most likely amount only to the extent that it is highly probable that there will not be a reversal in the amount of cumulative revenue recognised. The transaction price does not include estimates of consideration resulting from contract modifications, such as change orders, until they have been approved by the parties to the contract. The total transaction price is allocated to the performance obligations identified in the contract in proportion to their relative standalone selling prices. Given the bespoke nature of many of the Group’s products and services, which are designed and/or manufactured under contract to the customer’s individual specifications, there are sometimes no observable standalone selling prices. Instead, standalone selling prices are typically estimated based on expected costs plus contract margin consistent with the Group’s pricing principles or based on market knowledge of selling prices relating to similar product.

Revenue and profit recognition

Revenue is recognised as performance obligations are satisfied as control of the goods and services is transferred to the customer.

For each performance obligation within a contract, the Group determines whether it is satisfied over time or at a point in time. The Group has determined that the performance obligations of the majority of its contracts are satisfied at a point in time. Performance obligations are satisfied over time if one of the following criteria is satisfied:

– the customer simultaneously receives and consumes the benefits provided by the Group’s performance as it performs;

– the Group’s performance creates or enhances an asset that the customer controls as the asset is created or enhanced; or

– the Group’s performance does not create an asset with an alternative use to the Group and it has an enforceable right to payment for performance completed to date.

For each performance obligation to be recognised over time, the Group recognises revenue using an input method, based on costs incurred in the period. Revenue and attributable margin are calculated by reference to reliable estimates of transaction price and total expected costs, after making suitable allowances for technical and other risks. Revenue and associated margin are therefore recognised progressively as costs are incurred, and as risks have been mitigated or retired. The Group has determined that this method faithfully depicts the Group’s performance in transferring control of the goods and services to the customer.

If the over-time criteria for revenue recognition are not met, revenue is recognised at the point in time that control is transferred to the customer, which is usually when legal title passes to the customer and the business has the right to payment. Kromek's standard terms of delivery are FCA Delivery Location (Incoterms 2020), unless otherwise stated.

The Group's contracts that satisfy the over-time criteria are typically product development contracts where the customer simultaneously receives and consumes the benefit provided by the Group's performance. In some specific arrangements, due to the highly specific nature of the contract deliverables tailored to the customer requirements and the breakthrough technology solutions that Kromek provides, the Group does not create an asset with an alternative use but retains an enforceable right to payment and recognises revenue over time on that basis.

When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised immediately as an expense.

Contract modifications

The Group's contracts are sometimes amended for changes in customers' requirements and specifications. A contract modification exists when the parties to the contract approve a modification that either changes existing, or creates new, enforceable rights and obligations. The effect of a contract modification on the transaction price and the Group's measure of progress towards the satisfaction of the performance obligation to which it relates, is recognised in one of the following ways:

(a) prospectively as an additional, separate contract;

(b) prospectively as a termination of the existing contract and creation of a new contract; or

(c) as part of the original contract using a cumulative catch up.

The majority of the Group's contract modifications are treated under either (a) (for example, the requirement for additional distinct goods or services) or (b) (for example, a change in the specification of the distinct goods or services for a partially completed contract), although the facts and circumstances of any contract modification are considered individually as the types of modifications will vary contract-by-contract and may result in different accounting outcomes.

Costs to obtain a contract

The Group expenses pre-contract bidding costs that are incurred regardless of whether a contract is awarded. The Group does not typically incur costs to obtain contracts that it would not have incurred had the contracts not been awarded.

Costs to fulfil a contract

Contract fulfilment costs in respect of over-time contracts are expensed as incurred. No such costs have been incurred in the year under review or in previous years. Contract fulfilment costs in respect of point-in-time contracts are accounted for under IAS 2, Inventories.

Sale of Inventories

Inventories include raw materials, work-in-progress and finished goods recognised in accordance with IAS 2 in respect of contracts with customers that have been determined to fulfil the criteria for point-in-time revenue recognition under IFRS 15. Also included are inventories for which the Group does not have a contract. This is often because fulfilment costs have been incurred in expectation of a contract award. The Group does not typically build inventory to stock. Inventories are stated at the lower of cost, including all relevant overhead and net realisable value. The Group continued to adopt the policy of valuing its recyclable material. In accordance with the standard, this is valued at the lower of cost and net realisable value, less the cost required to bring the material back into use

Contract receivables

Contract receivables represent amounts for which the Group has an unconditional right to consideration in respect of unbilled revenue recognised at the balance sheet date and comprises costs incurred plus attributable margin. The Group does not plan, anticipate or offer extended payment terms within its contractual arrangements unless express payment interest charges are applied and represent a value over and above that contracted or invoiced with the customer.

Contract liabilities

Contract liabilities represent the obligation to transfer goods or services to a customer for which consideration has been received, or consideration is due, from the customer.

Leases

The Group recognises a right-of-use ("ROU") asset and a lease liability at the lease commencement date. The ROU asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred, and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The ROU asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the ROU or the end of the lease term. The estimated useful lives of the ROU assets are determined on the same basis as those of property and equipment. In addition, the ROU is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease, or, if that rate cannot be readily determined, the Group's incremental borrowing rate.

Lease payments included in the measurement of the lease liability comprise fixed payments.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the ROU asset, or is recorded in profit or loss if the carrying amount of the ROU has been reduced to zero.

The Group has elected not to recognise ROU assets and lease liabilities for short-term leases of machinery that have a lease term of 12 months or less and leases of low value assets, including IT equipment and leased cars. The Group recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

Foreign currencies

The individual results of each Group company are presented in the currency of the primary economic environment in which it operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each Group company are expressed in pounds sterling, which is the functional currency of the Company and the presentation currency for the consolidated financial statements. The Directors have applied IAS 21 The Effects of Changes in Foreign Exchange Rates and have concluded that the inter-company loans held by Kromek Limited substantially form part of the net investment in Kromek USA (Kromek Inc, eV Products, Inc. and Nova R&D, Inc.), and so any gain or loss arising on the inter-company loan balances are recognised as other comprehensive income in the period.

In preparing the results of the individual companies, transactions in currencies other than the entity's functional currency (foreign currencies) are recognised at the average exchange rate for the month to which the transaction relates. At each statement of financial position date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are translated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated. Exchange differences are recognised in profit or loss in the period in which they arise.

For the purpose of presenting consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated at exchange rates prevailing on the statement of financial position date. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during that period, in which case the exchange rates at the date of transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity. On consolidation, the results of overseas operations are translated into pounds sterling at rates approximating to those ruling when the transactions took place. All assets and liabilities of overseas operations, including goodwill arising on the acquisition of those operations, are translated at the rate ruling at the statement of financial position date. Exchange differences arising on translating the opening net assets at opening rate and the results of overseas operations at actual rate are recognised directly in other comprehensive income and are credited/(debited) to the retranslation reserve.

Government grants

Government grants are not recognised until there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants towards job creation and growth are normally recognised as income over the useful economic life of the capital expenditure to which they relate.

Government grants are recognised in the income statement so as to match them with the related expenses that they are intended to compensate. Grants that relate to capital expenditure are offset against related depreciation costs. Where grants are received in advance of the related expenses, they are initially recognised in the balance sheet and released to match the related expenditure. Non-monetary grants are recognised at fair value.

The Group has received Government grants in relation to the Coronavirus Job Retention Scheme (CJRS) provided by the UK Government in response to COVID-19's impact on business. The Group has elected to account for these grants as other operating income, rather than to off-set the Government grants within administrative expenses; accordingly, the gross impact is disclosed on the face of the Statement of Comprehensive Income. Total Government grants included as other operating income total £19k (2021: £379k).

Operating result

Operating loss is stated as loss before tax, finance income and costs.

Exceptional items

Exceptional items are those items that, in the judgement of management, need to be disclosed separately by virtue of their nature, size or incidence. Exceptional items, such as impairment reversals, have been classified separately in order to draw them to the attention of the reader of the accounts and, in the opinion of the Board, to show more accurately the underlying results of the Group.

Retirement benefit costs

The Group operates two defined contribution pension schemes for UK employees, one of which is an auto-enrolment workplace pension scheme established following the UK Pensions Act 2008. The employees of the Group's subsidiaries in the US are members of a state-managed retirement benefit scheme operated by the US Government.

Payments to defined contribution retirement benefit schemes are charged as an expense as they fall due. For these schemes, the assets are held separately from those of the Group in independently administered funds. Payments made to US state-managed retirement benefit schemes are dealt with as payments to defined contribution schemes where the Group's obligations under the schemes are equivalent to those arising in a defined contribution retirement benefit scheme.

Taxation

The tax expense represents the sum of the tax currently payable and deferred tax. Tax is recognised in the income statement except to the extent that it relates to items recognised directly in equity, in which case it is recognised in equity. The UK R&D tax credit is calculated using the current rules as set out by HMRC and is recognised in the income statement during the period in which the R&D programmes occurred.

i) Current tax

The tax credit is based on the taxable loss for the year. Taxable loss differs from net loss as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted at the date of the statement of financial position.

ii) Deferred tax

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the Consolidated Statement of Financial Position and the corresponding tax bases used in the computation of taxable profit and is accounted for using the statement of financial position liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each statement of financial position date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled, or the asset is realised, based on tax laws and rates that have been enacted or substantively enacted at the date of the statement of financial position. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited in other comprehensive income, in which case the deferred tax is also dealt with in other comprehensive income. Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

Property, plant and equipment

Property, plant and equipment is stated at cost less accumulated depreciation and any recognised impairment loss.

Depreciation is recognised so as to write off the cost or valuation of assets (other than land and properties under construction) less their residual values over their useful lives, using the straight-line method, on the following bases:

Plant and machinery	6% to 25%
Fixtures, fittings and equipment	15%
Computer equipment	25%
Lab equipment	6% to 25%

The gain or loss arising on the disposal or scrappage of an asset is determined as the difference between the sales proceeds and the carrying amount of the asset, and is recognised in income.

Internally-generated intangible assets – research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from the Group's product development is recognised only if all of the following conditions are met:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- its intention to complete the intangible asset and use or sell it;
- its ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits. Among other things, the entity can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and

- its ability to measure reliably the expenditure attributable to the intangible asset during its development.

Research expenditure is written off as incurred. Development expenditure is also written off, except where the Directors are satisfied as to the technical, commercial and financial viability of individual projects. In such cases, the identifiable expenditure is deferred and amortised over the period during which the Group is expected to benefit. This period normally equates to the life of the products to which the development expenditure relates. Where expenditure relates to developments for use rather than direct sales of product, the cost is amortised straight-line over a 2-15-year period. Provision is made for any impairment.

Amortisation of the intangible assets recognised on the acquisitions of Nova R&D, Inc. and eV Products, Inc. are recognised in the income statement on a straight-line basis over their estimated useful lives of between five and fifteen years.

Patents and trademarks

Patents and trademarks are measured initially at purchase cost and are amortised on a straight-line basis over their estimated useful lives.

Impairment of tangible and intangible assets, excluding goodwill

At each statement of financial position date, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated to determine the extent of the impairment loss (if any). Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the cash generating unit (CGU) to which the asset belongs. When a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual CGUs, or otherwise they are allocated to the smallest group of CGUs for which a reasonable and consistent allocation basis can be identified.

An intangible asset with an indefinite useful life is tested for impairment at least annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate of 11.35% (2021: 9.47%) that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or CGU) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or CGU) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the reversal of the impairment loss is treated as a revaluation increase.

Inventories

Inventories are stated at the lower of cost and net realisable value. The Group continue to adopt a policy of valuing recyclable material. Costs comprise direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated in the statement of financial position at standard cost, which approximates to historical cost determined on a first in, first out basis. Net realisable value represents the estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. Work in progress costs are taken as production costs, which include an appropriate proportion of attributable overheads.

Provision is made for obsolete, slow moving or defective items where appropriate. This is reviewed by operational finance at least every six months. Given the nature of the products and the gestation period of the technology, commercial rationale necessitates that this provision is reviewed on a case-by-case basis.

Provisions for liabilities

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation, and the amount can be reliably estimated. Such provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the balance sheet date. The discount rate used to determine the present value reflects current market assessments of the time value of money. Provisions are not recognised for future operating losses.

Financial instruments

(i) Recognition and initial measurement

Trade receivables are initially recognised when they are originated. All other financial assets and financial liabilities are initially recognised when the Group becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is a trade receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at Fair Value Through Profit or Loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

(ii) Classification and subsequent measurement

Financial assets

(a) Classification

On initial recognition, a financial asset is classified as measured at: amortised cost; Fair Value through Other Comprehensive Income (FVOCI) – debt investment; FVOCI – equity investment; or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition unless the Company changes its business model for managing financial assets in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

A financial asset is measured at amortised cost if it meets both of the following conditions:

- It is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in the investment's fair value in OCI. This election is made on an investment-by-investment basis.

All financial assets not classified as measured at amortised cost or FVOCI as described above are measured at FVTPL.

Investments in subsidiaries are carried at cost less impairment.

Cash and cash equivalents comprise cash balances and call deposits.

(b) Subsequent measurement and gains and losses

Financial assets at FVTPL – these assets (other than derivatives designated as hedging instruments) are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognised in profit or loss.

Financial assets at amortised cost – these assets are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognised in profit or loss. Any gain or loss on derecognition is recognised in profit or loss.

Financial liabilities and equity

Financial instruments issued by the Group are treated as equity only to the extent that they meet the following two conditions:

(a) They include no contractual obligations upon the Group to deliver cash or other financial assets or to exchange financial assets or financial liabilities with another party under conditions that are potentially unfavourable to the Group; and

(b) Where the instrument will or may be settled in the Group's own equity instruments, it is either a non-derivative that includes no obligation to deliver a variable number of the Group's own equity instruments or is a derivative that will be settled by the Group exchanging a fixed amount of cash or other financial assets for a fixed number of its own equity instruments.

To the extent that this definition is not met, the proceeds of issue are classified as a financial liability. Where the instrument so classified takes the legal form of the Group's own shares, the amounts presented in these financial statements for called up share capital and share premium account exclude amounts in relation to those shares.

Financial liabilities are classified as measured at amortised cost or FVTPL. A financial liability is classified as at FVTPL if it is classified as held for trading, it is a derivative or it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognised in profit or loss. Other financial liabilities are subsequently measured at amortised cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognised in profit or loss. Any gain or loss on derecognition is also recognised in profit or loss.

Where a financial instrument that contains both equity and financial liability components exists these components are separated and accounted for individually under the above policy.

Intra-Group financial instruments

Where the Group enters into financial guarantee contracts to guarantee the indebtedness of other companies within its Group, the Group considers these to be insurance arrangements and accounts for them as such. In this respect, the Group treats the guarantee contract as a contingent liability until such time as it becomes probable that the Group will be required to make a payment under the guarantee.

(iii) Impairment

The Group recognises loss allowances for expected credit losses (ECLs) on financial assets measured at amortised cost, debt investments measured at FVOCI and contract assets (as defined in IFRS 15).

The Group measures loss allowances at an amount equal to lifetime ECL, except for other debt securities and bank balances for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition, which are measured as twelve-month ECL.

Loss allowances for trade receivables and contract assets are always measured at an amount equal to lifetime ECL. When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECL, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Company's historical experience and informed credit assessment and including forward-looking information.

The Group assumes that the credit risk on a financial asset may have increased if it is more than 120 days past due. This is assessed on a case-by-case basis, taking into consideration the commercial relationship and historical pattern of payments.

The Group considers a financial asset to be at risk of default when:

• The borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or

• The financial asset is more than 120 days past due, subject to management discretion and commercial relationships.

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

Twelve-month ECLs are the portion of ECLs that result from default events that are possible within 12 months after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months).

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

Measurement of ECLs

Credit losses are measured and assessed on an individual balance by balance basis. In calculating, the Group uses its historical experience, external indicators and forward-looking information to calculate the expected credit losses. The general approach incorporates a review for any significant increase in counterparty credit risk since inception.

Credit-impaired financial assets

At each reporting date, the Group assesses whether financial assets carried at amortised cost and debt securities at FVOCI are credit impaired. A financial asset is "credit impaired" when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Write-offs

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. If there is recovery of the financial asset, a reversal will be recognised in the profit and loss.

Share-based payments

Equity-settled share-based payments to employees and others providing similar services are measured at the fair value of the equity instruments at the grant date and spread over the period during which the employees become unconditionally entitled to the options, which is based on a period of employment of three years from grant date. In accordance with IFRS 2, from a single entity perspective, Kromek Group plc recognises an increase in investment and corresponding increase in equity to represent the settlement.

The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Group's estimate of equity instruments that will eventually vest. The vesting date is determined based on the date an employee is granted options, usually three years from date of grant. At each statement of financial position date, the Group revises its estimate of the number of equity instruments expected to vest as a result of the effect of non-market-based vesting conditions and taking into account the average time in employment across the year. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to equity reserves.

Cash

Cash, for the purposes of the statement of cash flows, comprises cash in hand and term deposits repayable between one and twelve months from balance sheet date, less overdrafts repayable on demand.

3. Operating segments

Products and services from which reportable segments derive their revenues

For management purposes, the Group is organised into two geographical business units from which the Group currently operates (US and UK) and it is these operating segments for which the Group is providing disclosure. Both business units serve the three principal key markets in which the Group operates (nuclear detection, medical imaging and security screening). However, typically, the US business unit focuses principally on medical imaging and the UK focuses on nuclear detection and security screening. However, this arrangement is flexible and can vary based on the geographical location of the Group's customer. In addition to the three principal key markets described above, the Group's UK operations are developing a biological-threat detection technology, which the Board believes will be a key market for the Group in the near future.

The chief operating decision maker is the Board of Directors, which assesses the performance of the operating segments using the following key performances indicators: revenues, gross profit and operating profit.

The amounts provided to the Board with respect to assets and liabilities are measured in a way consistent with the financial statements.

The turnover, profit on ordinary activities and net assets of the Group are attributable to two business segments. The first segment relates to the development of digital colour X-ray imaging enabling direct materials identification as well as developing a number of detection products in the industrial and consumer markets. The second segment relates to the development of a technology platform, as described above, which aims to identify airborne pathogens.

Analysis by geographical area

A geographical analysis of the revenue from the Group's customers, by destination, is as follows:

	2022 £'000	2021 £'000
United Kingdom	**2,033**	1,627
North America	**5,807**	5,693
Asia	**1,556**	610
Europe	**2,601**	2,387
Australasia	**58**	3
Africa	**-**	32
Total revenue	**12,055**	10,352

The Group has aggregated its market sectors into two reporting segments being the operational business units in the UK and US. The UK operations comprise Kromek Group plc and Kromek Limited and the US operations comprise Kromek Inc, eV Products Inc, and Nova R&D Inc. The Board currently considers this to be the most appropriate aggregation due to the main markets that are typically addressed by the UK and US business units and the necessary skillsets and expertise.

A geographical analysis of the Group's revenue by origin is as follows:

Year ended 30 April 2022:

	UK Operations £'000	**US Operations £'000**	**Total for Group £'000**
Revenue from sales			
Revenue by segment:			
-Sale of goods and services	9,036	9,013	18,049
-Revenue from grants	646	-	646
-Revenue from contract customers	1,227	245	1,472
Total sales by segment	10,909	9,258	20,167
Removal of inter-segment sales	(5,564)	(2,548)	(8,112)
Total external sales	5,345	6,710	12,055
Segment result – operating loss before exceptional items	(3,732)	(1,981)	(5,713)
Interest received	34	-	34
Interest expense	(348)	(234)	(582)
Exceptional items	-	132	132
Loss before tax	(4,046)	(2,083)	(6,129)
Tax credit	1,228	(17)	1,211
Loss for the year	(2,818)	(2,100)	(4,918)
Reconciliation to adjusted EBITDA:			
Net interest	314	234	548
Tax	(1,228)	17	(1,211)
Depreciation of PPE and right-of-use assets	1,010	741	1,751
Amortisation	1,548	1,021	2,569
Share-based payment charge	236	-	236
Reversal of exceptional items	-	(132)	(132)
Adjusted EBITDA	(938)	(219)	(1,157)
Other segment information			
Property, plant and equipment additions	124	527	651
Right-of-use assets	2,048	3,458	5,506
Depreciation of PPE and right-of-use assets	1,010	741	1,751
Release of capital grant	(44)	-	(44)
Intangible asset additions	4,199	1,599	5,798
Amortisation of intangible assets	1,548	1,021	2,569
Statement of financial position			
Total assets	39,494	27,929	67,423
Total liabilities	(13,376)	(6,611)	(19,987)

Year ended 30 April 2021:

	UK Operations £'000	US Operations £'000	Total for Group £'000
Revenue from sales			
Revenue by segment:			
-Sale of goods and services	5,346	5,395	10,741
-Revenue from grants	474	-	474
-Revenue from contract customers	3,346	894	4,240
Total sales by segment	9,166	6,289	15,455
Removal of inter-segment sales	(3,526)	(1,577)	(5,103)
Total external sales	5,640	4,712	10,352
Segment result – operating loss before exceptional items	(1,594)	(4,243)	(5,837)
Interest received	2	-	2
Interest expense	(324)	(224)	(548)
Exceptional items	-	52	52
Loss before tax	(1,916)	(4,415)	(6,331)
Tax credit	989	(11)	978
Loss for the year	(927)	(4,426)	(5,353)
Reconciliation to adjusted EBITDA:			
Net interest	322	224	546
Tax	(989)	11	(978)
Depreciation of PPE and right-of-use assets	997	688	1,685
Amortisation	1,370	989	2,359
Share-based payment charge	106	-	106
Exceptional items	-	(52)	(52)
Adjusted EBITDA	879	(2,566)	(1,687)
Other segment information			
Property, plant and equipment additions	354	100	454
Right-of-use assets	2,048	3,131	5,179
Depreciation of PPE and right-of-use assets	997	688	1,685
Release of capital grant	(44)	-	(44)
Intangible asset additions	4,576	1,043	5,619
Amortisation of intangible assets	1,370	989	2,359
Statement of financial position			
Total assets	47,466	22,692	70,158
Total liabilities	(13,638)	(6,465)	(20,103)

Inter-segment sales are charged on an arms-length basis.

No other additions of non-current assets have been recognised during the year other than property, plant and equipment, and intangible assets.

No impairment losses were recognised in respect of property, plant and equipment and intangible assets including goodwill.

The accounting policies of the reportable segments are the same as the Group's accounting policies described in note 2. Segment loss represents the loss reported by each segment. This is the measure reported to the Group's Chief Executive for the purpose of resource allocation and assessment of segment performance.

Revenues from major products and services

The Group's revenues from its major products and services were as follows:	2022 £'000	2021 £'000
Product revenue	**9,935**	5,836
Research and development revenue	**2,120**	4,516
Consolidated revenue	**12,055**	10,352

Information about major customers

Included in revenues arising from US operations are revenues of approximately £2,178k (2021: £1,934k) that arose from the Group's largest commercial customer. Included in revenues arising from UK operations are revenues of approximately £955k (2021: £2,784k) that arose from a major Governmental organisation customer.

4. Other Operating Income

During the financial year, other operating income comprised the forgiveness of PPP loans granted by the US Government and grants received from the Coronavirus Job Retention Scheme provided by the UK Government in response to COVID-19's economic impact on businesses.

	2022 £'000	2021 £'000
Coronavirus Job Retention Scheme	**19**	129
Miscellaneous	**17**	-
PPP loan forgiveness	**1,374**	-
Other government grants	**-**	250
Total other operating income	**1,410**	379

5. Loss before tax for the year

Loss before tax for the year has been arrived at after charging/(crediting):

	2022 £'000	2021 £'000
Net foreign exchange losses	**155**	80
Research and development costs recognised as an expense	**1,308**	1,116
Depreciation of property, plant and equipment	**1,751**	1,685
Release of capital grant	**(44)**	(44)
Amortisation of internally-generated intangible assets	**2,569**	2,359
Cost of inventories recognised as expense	**3,003**	3,899
Exceptional items – reversal of trade receivables and AROC (see note 7)	**(132)**	(52)
Staff costs (see note 6)	**9,543**	8,806

6. Staff costs

The average monthly number of employees (excluding non-executive directors) was:

	2022 Number	2021 Number
Directors (executive)	**3**	2
Research and development, production	**133**	118
Sales and marketing	**5**	7
Administration	**13**	12
	154	139

Their aggregate remuneration comprised:

	2022 £'000	2021 £'000
Wages and salaries	**8,069**	7,618
Social security costs	**739**	682
Pension scheme contributions	**499**	400
Share-based payments	**236**	106
	9,543	8,806

The total Directors' emoluments (including non-executive directors) was £890k (2021: £640k). The aggregate value of contributions paid to money purchase pension schemes was £24k (2021: £28k) in respect of four directors (2021: four directors). There has been no exercise of share options by the Directors in the period and therefore no gain recognised in the year (2021: nil).

The highest paid director received emoluments of £270k (2021: £231k) and amounts paid to money purchase pension schemes was £4k (2021: £15k).

Key management compensation:

	2022 £'000	2021 £'000
Wages and salaries and other short-term benefits	**1,050**	888
Social security costs	**112**	125
Pension scheme contributions	**32**	29
Share-based payment expense	**146**	106
	1,340	1,148

Key management comprise the Executive Directors and senior operational staff.

7. Exceptional Items

Exceptional items, booked to operating costs, comprised the following:

	2022 £'000	2021 £'000
Reversal of trade receivables and AROC	**(132)**	(52)
Total exceptional items	**(132)**	(52)

The immediate and ongoing impact of the COVID-19 pandemic has created significant economic uncertainty on a global scale. The expected credit losses are reviewed annually, or when there is a significant change in external factors potentially impacting credit risk, such as COVID-19, and are updated where management's expectations of credit losses change.

Management group and measure the expected credit losses of trade receivables based on operational market and geographical region. As illustrated in note 3, the Group operates across a number of geographical areas.

The Group has reversed £132k in 2022 (2021: £52k) in relation to items impaired in a prior year. The impairment (recognised in FY2020) related to two separate contracts with specific customers in Asia who were identified as having a significantly elevated credit risk. The assessment carried out by management suggested delays in delivery due to travel restriction and subsequent doubt over expected future cash flow, increasing the likelihood of credit default by these specific debtors in the next 12 months due. A charge of £13,062k was presented in FY2020 as an exceptional item arising as a result of COVID-19 in accordance with the Group's accounting policy, as it was considered to be one-off in nature, size and incidence. It represented a full write down of invoiced debtors and AROC. The amounts have been fully written down as management have concluded that any collateral is not considered to be material. No adjustment or reversal to the impairment calculated in 2020, specific to one of the contracts, has been included in 2021 and 2022 on the basis that the recoverability of this receivable remains uncertain.

From a tax perspective, this impairment has increased the taxable losses in the prior year period, however no deferred tax asset has been recognised as it is not yet certain that there will be future taxable profits available.

Asia still represents a significant technology opportunity for the Group; however, the Group is currently uncertain of timescales to full market traction. Any subsequent reversal of the amount recognised in future years would also be recognised as an exceptional item.

8. Tax

Recognised in the income statement

	2022 £'000	2021 £'000
Current tax credit:		
UK corporation tax on losses in the year	**942**	1,014
Adjustment in respect of previous periods	**286**	(25)
Foreign taxes paid	**(17)**	(11)
Total current tax	**1,211**	978
Deferred tax:		
Origination and reversal of timing differences	**-**	-
Adjustment in respect of previous periods	**-**	-
Total deferred tax	**-**	-
Total tax credit in income statement	**1,211**	978

A UK corporation rate of 19% (effective 1 April 2020) was substantively enacted on 17 March 2020, reversing the previously enacted reduction in the rate from 19% to 17%. This will increase the Company's future current tax charge accordingly. The deferred tax asset at 30 April 2022 has been calculated at 19% (2021: 19%). The corporate tax rate will increase to 25% from 19% with effect from April 2023.

Reconciliation of tax credit

The charge for the year can be reconciled to the profit in the income statement as follows:

	2022 £'000	2021 £'000
Loss before tax	**(6,129)**	(6,331)
Tax at the UK corporation tax rate of 19% (2021: 19%)	**1,165**	1,203
Non-taxable income/expenses not deductible	**(184)**	614
Effect of R&D	**456**	451
Effect of other tax rates/credits	**124**	-
Share scheme deduction under Part 12 CTA 2009	**-**	5
Unrecognised movement on deferred tax	**(815)**	(1,648)
Adjustment in respect of previous periods	**286**	(26)
Effects of overseas tax rates	**179**	379
Total tax credit for the year	**1,211**	978

There are no tax items charged to other comprehensive income.

The effect of R&D is the tax impact of capitalised development costs being deducted in the year in which they are incurred.

The rate of corporation tax for the year is 19% (2021: 19%). A UK corporation rate of 19% (effective 1 April 2020) was substantively enacted on 17 March 2020, reversing the previously enacted reduction in the rate from 19% to 17%. Accordingly, deferred tax has been provided in line with the rates at which temporary differences are expected to reverse.

The other tax jurisdiction that the Group currently operates in is the US. Any deferred tax arising from the US operations is calculated at 27.59%, which represents the federal plus state tax rate.

9. Losses per share

As the Group is loss making, dilution has the effect of reducing the loss per share. The calculation of the basic earnings per share is based on the following data:

Losses	**2022 £'000**	**2021 £'000**
Losses for the purposes of basic and diluted losses per share being net losses attributable to owners of the Group	**(4,918)**	(5,353)

Number of shares	**2022 Number**	2021 Number
Weighted average number of ordinary shares for the purposes of basic losses per share	**431,851,820**	358,912,092
Effect of dilutive potential ordinary shares: Share options	**350,556**	372,638
Weighted average number of ordinary shares for the purposes of diluted losses per share	**432,202,376**	359,284,730

	2022	**2021**
Basic (p)	**(1.1)**	(1.5)

Basic earnings per share is calculated by dividing the loss attributable to shareholders by the weighted average number of ordinary shares in issue during the year. IAS 33 requires presentation of diluted EPS when a company could be called upon to issue shares that would decrease earnings per share or increase the loss per share. For a loss-making company with outstanding share options, net loss per share would be decreased by the exercise of options. Therefore, the anti-dilutive potential ordinary shares are disregarded in the calculation of diluted EPS.

10. Intangible Assets including Goodwill

	£'000
Cost	
At 1 May 2021 and 30 April 2022	1,275
Accumulated impairment losses	
At 1 May 2021 and 30 April 2022	-
Carrying amount	
At 30 April 2022 and 30 April 2021	**1,275**

Goodwill acquired in a business combination is allocated, at acquisition, to the cash generating units (CGUs) that are expected to benefit from that business combination. Before recognition of impairment losses, the carrying amount of goodwill had been allocated as follows:

CGU	Goodwill £'000	Intangibles £'000
US	1,275	10,862
UK	-	17,513
Total	**1,275**	**28,375**

The goodwill arose on the acquisition of Nova R&D, Inc. in 2010, and represents the excess of the fair value of the consideration given over the fair value of the identifiable assets and liabilities acquired.

Goodwill has been allocated to Kromek USA (a combination of eV Products and Nova R&D Inc.) as a cash generating unit (CGU). This is reported in note 3 within the segmental analysis of the US operations.

Impairment tests

The Group tests goodwill annually for impairment or more frequently if there are indications that goodwill might be impaired, by comparing the carrying value of the goodwill to its value in use on a discounted cash flow basis.

The Group tests intangible assets with finite lives for impairment if an indicator exists. The Board considers the potential impact of COVID-19 on the future prospects of the business to be an indicator of impairment and has carried out an impairment test by comparing the carrying value of each CGU to its value in use on a discounted cash flow basis.

In undertaking the impairment test, management considered both internal and external sources of information. The impairment testing did not identify any impairments in either CGU.

Forecast cash flows

Management has prepared cash flow forecasts for 10 years (UK) and 15 years (US) plus a perpetuity. This exceeds the five years as set out in the standard but has been used on the basis that the entity is in the early stage of its maturity and will not have reached steady state after five years. Management have visibility over contracts in place and in the pipeline that enable it to forecast accurately and the cash flows are based on the useful economic life of the 'know how', which is considered to be the essential asset.

US

The key assumptions to the value in use calculations are set out below:

- *Growth rate.* The 2022 model does not include any revenue growth in years 1 and 2 (see below for comparatives). This growth rate comprises both capacity increases as a result of increases in raw material to finished product efficiencies and price increases, factoring in existing contracts and those in the pipeline and is reflective of historical growth rates as well as and the Company's share of the overall markets the US CGU operates in. No growth is assumed after 10 years.
- *Discount rates.* Management have derived a pre-tax discount rate of 11.35% (2021: 9.47%) using the latest market assumptions for the risk-free rate, the equity premium and the net cost of debt, which are all based on publicly available sources, as well as adjustments for forecasting risk for which management considered the historical growth of the entity as well as the visibility of cash flows from a contracted perspective, which are all based on publicly available sources. The discount rate is higher than that used in 2021. The key drivers of this change are the changes in market assumptions for US corporate bond yields and risk-free rates.

The Challenge Model Base Case incorporates the following into the US forecast:

- Revised year 1 and year 2 cashflows to match the severe but plausible budget conducted as part of the Going Concern review.
- Extended the forecast period to 15 years (plus perpetuity), on the basis that the asset base is expected to generate revenues over a much longer period of time than modelled by management.
- Modelled a smoother increase in revenues from the year 1 and year 2 budgets to year 15 whilst taking into consideration potential capacity constraints.

UK

- *Growth rate.* The model does not include any growth in years 1 and 2 (see below for comparatives), with a 5% growth rate from year 3 onwards. This growth rate comprises both capacity increases as a result of increases in raw material to finished product efficiencies and price increases, factoring in existing contracts and those in the pipeline and is reflective of historical growth rates as well as and the Company's share of the overall markets the UK CGU operates in. No growth is assumed after 10 years.

- *Discount rates.* Management have derived a pre-tax discount rate of 10.50% (2021: 9.13%) using the latest market assumptions for the risk-free rate, the equity premium and the net cost of debt, which are all based on publicly available sources, as well as adjustments for forecasting risk for which management considered the historical growth of the entity as well as the visibility of cash flows from a contracted perspective. The discount rate is higher than that used in 2021. The key drivers of this change are the changes in market assumptions for UK corporate bond yields and risk-free rates.

The Challenge Model Base Case incorporates the following into the UK forecast:

- Revised year 1 and year 2 cashflows to match the severe but plausible budget conducted as part of the Going Concern review.
- Extended the forecast period to 15 years (plus perpetuity), on the basis that the asset base is expected to generate revenues over a much longer period of time than modelled by management.
- Modelled a smoother increase in revenues from the year 1 and year 2 budgets to year 10.

Sensitivities

The headrooms in the base case models are £30,209k (US CGU) and £34,729k (UK CGU). The table below sets out the impact of the following reasonable changes in assumption on the headroom of each CGU:

	US Headroom	UK Headroom
Challenge base model	£119,554k	£112,343k
Combination of Discount Rate +2% and Challenge model	£85,450k	£70,641k
Combination of Discount Rate -2% and Challenge model	£171,904	£179,612

The Directors have reviewed the recoverable amount of the CGU and do not consider there to be any impairment in 2022 or 2021.

11. Other intangible assets

	Development costs £'000	Patents, trademarks & other intangibles £'000	Total £'000
Cost			
At 1 May 2021	29,055	7,344	36,399
Additions	5,619	179	5,798
Exchange differences	1,206	390	1,596
At 30 April 2022	35,880	7,913	43,793
Amortisation			
At 1 May 2021	6,944	5,311	12,255
Charge for the year	2,056	513	2,569
Exchange differences	296	298	594
At 30 April 2022	9,296	6,122	15,418
Carrying amount			
At 30 April 2022	**26,584**	**1,791**	**28,375**
At 30 April 2021	22,111	2,033	24,144

The Group amortises capitalised development costs on a straight-line basis over a period of 2-15 years rather than against product sales directly relating to the development expenditure. Any impairment of development costs are recognised immediately through the profit and loss.

Patents and trademarks are amortised over their estimated useful lives, which is on average 10 years.

The carrying amount of acquired intangible assets arising on the acquisitions of Nova R&D, Inc. and eV Products, Inc. as at the 30 April 2022 was £357k (2021: £488k), with amortisation to be charged over the remaining useful lives of these assets which is between 3 and 13 years.

The amortisation charge on intangible assets is included in administrative expenses in the consolidated income statement.

Further details on impairment testing are set out in note 10.

12. Property, plant and equipment

	Lab equipment £'000	Computer equipment £'000	Plant and machinery £'000	Fixtures and fittings £'000	Total £'000
Cost or valuation					
At 1 May 2021	209	1,335	17,418	542	19,504
Additions	1	76	527	47	651
Exchange differences	-	52	676	30	758
At 30 April 2022	210	1,463	18,621	619	20,913
Accumulated depreciation and impairment					
At 1 May 2021	33	1,032	6,956	283	8,304
Charge for the year	42	118	1,078	50	1,288
Exchange differences	-	39	324	14	377
At 30 April 2022	75	1,189	8,358	347	9,969
Carrying amount					
At 30 April 2022	**135**	**274**	**10,263**	**272**	**10,944**
At 30 April 2021	176	303	10,462	259	11,200

13. Inventories

	2022 £'000	2021 £'000
Raw materials	**3,554**	2,022
Work-in-progress	**6,304**	3,707
Finished goods	**645**	473
	10,503	6,202

The cost of inventories recognised as an expense during the year in respect of continuing operations was £5,006k (2021: £3,899k).

The write-down of inventories to net realisable value amounted to £852k (2021: £496k). The reversal of write-downs amounted to £94k (2021: £120k).

14. Borrowings

	2022 £'000	2021 £'000
Secured borrowing at amortised cost		
Revolving credit facility and capex facility	**4,500**	4,900
Other borrowings	**1,965**	3,303
	6,465	8,203
Total borrowings		
Amount due for settlement within 12 months	**5,716**	5,387
Amount due for settlement after 12 months	**749**	2,816

The Group has a £5.0m revolving credit facility (RCF) with HSBC, which also incorporates a capex facility. This facility was for an initial 36-month period with an option to extend to years 4 and 5. The Group opted to extend the facility to year 4 being the year to March 2023, which was agreed by the Bank. This loan is repaid on a quarterly basis in an amount equal to 1/20th of the drawn capex loan. Once repaid, the Group is able to draw down the repaid amount against the original RCF. The facility is secured by a debenture and a composite guarantee across the Group. The interest rate on the RCF is Bank of England Base Rate +2.5% with a repayment term of six months from date of drawdown. The fair value equates to the carrying value.

The RCF and capex facility from HSBC have certain covenants attached. The Group has been in compliance with all of the Bank's covenant requirements during the year other than the compliance period 30 April 2022, when the Group breached its leverage covenant. This breach was subsequently waived by HSBC and the Board has negotiated with HSBC that the Group shall not be required to ensure compliance with this leverage covenant up to and including the January 2023 quarterly compliance review. This waiver is conditional at the date of signing this report, however, the Board are confident that the Group will be able to satisfy the condition.

In the prior year, the Group successfully secured a 2-year, £1.4m Term Loan with HSBC which attracts interest at 3.49% per annum over Bank of England Base Rate. This loan is repayable in August 2022.

Other borrowings comprise a loan with the landlord in the US in respect of the facility occupied by eV Products, Inc. This loan is repaid in equal instalments on a monthly basis and attracts interest at 7.50% per annum. At 30 April 2022, the total loan due to the landlord was £0.4m (2021: £0.5m). Of this, £0.2m is due within 12 months (2021: £0.2m) and £0.2m (2021: £0.3m) is due after 12 months.

The Group's US operations were eligible to apply for an Economic Injury Disaster Loan. A loan of £0.1m was approved and secured in June 2020. A further loan of £0.4m was approved and secured in August 2021. This loan attracts interest at a rate of 3.75% per annum and the maturity date is 30 years from the date of the loan note.

Due to the disruption to the Group's business caused by COVID-19, in 2021 the Group's US operations successfully secured £1.4m of Paycheck Protection Program Loans offered to businesses in the US. During the year, the Group applied for full forgiveness of these loans and was successful in its application. This loan forgiveness has been recorded as other operating income (note 4).

Finance lease liabilities are secured by the assets leased. The borrowings are at a fixed interest rate with repayment periods not exceeding five years.

The weighted average interest rates paid during the year were as follows:

	2022	**2021**
	%	**%**
Revolving credit facility	2.80	3.00
Other borrowing facilities	6.60	6.70

15. Notes to the cash flow statement

	2022 £'000	2021 £'000
Loss for the year	**(4,918)**	(5,353)
Adjustments for:		
Finance income	**(34)**	(2)
Finance costs	**582**	548
Income tax credit	**(1,211)**	(978)
Depreciation of property, plant and equipment and ROU	**1,751**	1,685
Amortisation of intangible assets	**2,569**	2,359
Share-based payment expense	**236**	106
PPP loan forgiveness	**(1,443)**	-
Impairment of intangible asset	**-**	30
Loss on disposal	**-**	82
Operating cash flow before movements in working capital	**(2,468)**	(1,523)
(Increase)/decrease in inventories	**(4,301)**	214
Decrease in receivables	**215**	1,566
Increase/(decrease) in payables	**1,741**	(2,571)
Cash used in operations	**(4,813)**	(2,314)
Income taxes received	**1,283**	1,005
Net cash used in operating activities	**(3,530)**	(1,309)

Cash and cash equivalents

	2022 £'000	2021 £'000
Cash and bank balances	**5,081**	15,602

Cash and cash equivalents comprise cash and term bank deposits repayable between one and twelve months from balance sheet date, net of outstanding bank overdrafts. The carrying amount of these assets is approximately equal to their fair value.

16. Events after the balance sheet date

There have been no further events after the reporting date that require adjustment or disclosure in line with IAS10 events after the reporting period.