27 September 2021

Microsaic Systems plc

("Microsaic", "Microsaic Systems" or the "Company")

Interim Results for the six months ended 30 June 2021

Microsaic Systems plc (AIM: MSYS), the developer of point of need mass spectrometry ("MS") instruments and analytical solutions, is pleased to announce its unaudited interim results for the six months ended 30 June 2021. A strategic change of business model early in 2021 has resulted in a recovery of revenues, increasing to £499k in H1 2021, significantly above H1 2020 and that of H1 2019, a pre-pandemic benchmark.

Highlights

- Unaudited revenues of £499k:
  - 594% increase on H1 2020 (£72k) and 52% improvement compared to H1 2019 (£328k)
  - Strongest adjusted EBITDA performance since the Company was admitted to AIM
- January: transformative placing which raised gross proceeds of £5.5m, board changes and strategic shift away from independent development to a commercial strategy with external partners
- March: commercial agreement with DeepVerge plc ("DeepVerge"; AIM: DVRG), facilitating international deployment of Microsaic's products and services in applications such as water monitoring of chemicals and pathogens, and in support of DeepVerge's rapidly growing Labskin division
- May: collaboration with Swansea University to combine real-time monitoring of environmental water using AI in determining the link between environmental chemical pollution and human health
- May: Heads of Terms ("HoT") with a Chinese distributor for the distribution of Microsaic's technology as part of a medically licenced bed-side solution for therapeutic drug monitoring ("TDM") in China.
- June: initial shipments to a newly signed Chinese partner to secure medical licence for China to deliver real-time TDM with future recurring revenue opportunities (including service and reagent consumables) expected in 2022
- June: increased orders through DeepVerge sales channel under the framework agreement
- Five key commercial hires focusing on environmental detection of water contamination and human health markets, delivering real-time on-site monitoring and data analytics with connected Internet of Things ("IoT"), AI and support services

Post Period Events

- July: First real-time monitoring demonstration of on-line production of biotherapeutic drugs such as vaccines and anti-cancer treatments using Process Analytical Technology within a Microsaic micro-engineered MS solution
- August: Heads of Terms ("HoT") signed for production of unique point-of-care hospital bedside diagnostic unit with manufacturing partner to support the distribution of Microsaic's micro-engineered MS technology providing additional support for medical device licence in China

- August: The launch of a miniaturised mass spectrometer platform, achieving triple quadrupole ("Triple Quad") limits of detection for real-time monitoring and identification of organic chemicals in water and soil, a first for MS technology delivering regulatory-grade testing methods in the field
- September: Signing of a full agreement with a Chinese partner Jiangsu Henzhihe Technologies Co. Ltd ("HZH"), providing a forward manufacturing and service support centre for distributors in China. HZH will initially support the Chinese distributor (RNS 4th May 2021) for point of need TDM, and securing a medical licence to ship products in China into this (and other) markets globally

Ongoing commercial developments

- Disruptive low-cost and mobile system to detect organic chemicals in water and wastewater adapted for in-field deployment
- Detection of volatile contaminants in water, with product demonstration expected in H2 of this year. This significantly expands the reach of applications with mobile capability for environmental regulatory authorities
- Multiple collaboration projects, including in-surgery cancer diagnostics, with the aim to secure commercial supply agreements with the potential to revolutionise operating theatre surgical oncology interventions

Outlook

- The Board anticipates the sales momentum of H1 to continue in H2 based on its sales pipeline. Potential collaborations and trials with DeepVerge may lead to significant opportunities in environmental water detection
- During the second half of 2021 the Board expects full agreements to be signed with its Chinese Partners for the assembly, distribution and servicing of its product in China, ahead of achieving a medical device licence in China for therapeutic drug monitoring in 2022
- Furthermore, in H2, Microsaic intends to appoint a contract research organisation ("CRO") to undertake cell line work in bioreactors before placing its bioprocessing technology and services with end-user biopharma for beta trials, ahead of expected commercialisation in 2022
- The Company expects to launch a new detection platform in H2, targeting a wider range of chemical contaminants in water. This will further augment the combined chemical/pathogen detection capabilities between DeepVerge and Microsaic

Glenn Tracey, CEO of Microsaic Systems plc, commented:
"*I am thrilled to report this transformational performance for the first half of 2021, following the effects the COVID-19 lockdown had on our customers, suppliers and employees throughout 2020 and the operational and financial strain this placed on the Company. The new commercial strategy of collaborating, partnering and revenue sharing is moving the Company away from equipment-only sales. Microsaic is now focused on offering integrated real-time data analytics with AI alongside our mass spectrometry hardware, providing complete, value-adding solutions such as in-field environmental testing and on-site human diagnostics. The change in strategy and business model has already opened up new market opportunities and applications for our differentiated technology solutions, and demonstrated solid evidence of sales growth which is expected to continue into H2.*
I am also delighted to have signed our partners HZH, which represents a major expansion of our global footprint as we continue to bring on point of need technical solutions in the near term."

Enquiries:

Microsaic Systems plc Glenn Tracey, CEO Bevan Metcalf, FD	+44 (0)1483 751 577
Singer Capital Markets (Nominated Adviser & Joint Broker) Aubrey Powell / Tom Salvesen / George Tzimas	+44 (0)20 7496 3000
Turner Pope Investments (TPI) Limited (Joint Broker) Andy Thacker / James Pope	+44 (0)20 3657 0050

About Microsaic Systems

Microsaic listed on AIM in 2011 to develop and commercialise micro-engineering chip-based mass spectrometry equipment. Having invested £30m (before the last fundraising) over the last 20 years before and after the IPO, Microsaic has a robust patent portfolio in cutting-edge technology purpose built for “Industry 4.0” which enables analytical detection and characterisation at the point-of-need, whether within a human health environment, conventional laboratory setting, or within a bioprocessing facility for continuous mass spectrometer detection and monitoring of data at any step in the process workflow.

Microsaic's products and solutions are commercially available through global markets via a network of regional and local partners, targeting its core laboratory, manufacturing and point-of-need applications.

CEO Statement

Performance

Revenues were £499k for the period, an impressive 594 per cent. increase over H1 2020 (£72k) and 52 per cent. over H1 2019 (£328k). After a transformative placing, raising gross proceeds of £5.5m, and board changes, the Company immediately implemented changes to its market and business strategy.

Market Strategy

The Company has focused on two key markets, reflecting its commitment to solving real world problems affecting our Health and Environment using our unique screening and monitoring platforms, incorporating MS detection technology, software, and services to end users.

Human Health

Microsaic's products and services span several markets, characterising the evolution of human health from drug discovery, through to manufacturing, quality control and therapeutic monitoring.

Bioprocessing and manufacturing

The Company has identified a significant market for in-situ analysis of small and large molecules, particularly in upstream bioprocessing. Applications identified to date include monitoring the quality of incoming feedstocks, and identification of target proteins (biologic drugs) and their metabolites. The Board believes that Microsaic's technology, integrated into existing workflows, will provide customers with significant cost savings, but more importantly will provide additional data not usually seen by traditional optical and assay-based methods during the bio-manufacturing process. Such an approach could greatly assist biologics manufacturers to meet increasing demands from regulators to provide more data, sooner, in the development, scale-up and manufacturing processes.

Microsaic announced on 2 July, that it had interfaced its micro-engineered and fully portable MS detector with a bioreactor and autosampler, coupled with process control software, to provide continuous, real-time analysis of the biomanufacturing process, including the provision of additional data analytics for quality monitoring and assurance.

Biopharmaceuticals is a well-established and rapidly growing sector (currently valued at circa $200 billion[1]), which faces significant challenges around process robustness. This is particularly apparent within upstream processing, which relies on fundamental biology and carries inherent product variability risks. Point-of-need MS would provide timely and critical safety and quality assurance, as adverse effects would be identified earlier in the process and mitigated upstream.

The analytical instrumentation market in upstream bioprocessing alone was projected to be worth circa $390 million in 2020[2]. The Company believes that its compact, easy-to-use, MS technology is well-positioned to access a share of this market, working with bioprocessing instrument providers and end-users in biopharmaceutical manufacturing alike.

Additionally, Microsaic's technology has been interfaced with more traditional pharmaceutical manufacturing, with accounts such as Merck, Corning and Samsung.

Therapeutic Drug Monitoring – China Opportunity

In May, Microsaic announced the signing of non-binding HoT with a Chinese partner (the "Partner"). The HoT describe the in-principle agreement for the parties to collaborate to supply and market Microsaic's micro-engineered MS technology for use within a point of care medical device monitoring system for hospital diagnostics in the Chinese market. In 2019, there were 33,000 hospitals registered in China, with 7.9 million beds[3].

Under the HoT, the first application will be in monitoring psychiatric therapeutic drugs, with further monitoring applications to follow. Subject to completion of a final agreement with the Partner, Microsaic expects to generate two streams of revenue, from both the initial sale of monitoring systems and the subsequent recurring revenue-share from the supply of reagents and consumables used for monitoring.

Both parties will negotiate and agree the terms of the proposed assembly and sale of the monitoring equipment. The Company anticipates that the requisite medical device licence will be secured during 2022, although Microsaic's technology is expected to have production capability in China later this year, which will be in support of product testing and validation for Chinese regulatory approval.

In August, HoT were signed with a manufacturing partner, to support the production and distribution of Microsaic's micro-engineered MS technology and support the medical device licence referred to above in China.

Microsaic will seek similar applications in healthcare markets across North America and Europe.

<u>Environmental Health</u>

In May, Microsaic announced a collaboration with Swansea University Medical School, utilising Microsaic's miniature mass spectrometry equipment, to develop a monitoring platform capable of measuring per- and polyfluoroalkyl substances ("PFAS", also known as 'forever chemicals') at source and within a laboratory setting. Solidifying the link between environmental and human health, this will be used to establish the health impacts of the broader range of PFAS pollutants. The detection platform will combine environmental sample preparation and epigenetic approaches with Microsaic's miniature mass spectrometer. Through partnership with stakeholders in the environmental sector, this collaboration is designed to better inform pollution remediation, improve management processes for reduced emission and promote safer handling of PFAS chemicals.

PFAS are pollutants of increasing concern, known as 'forever chemicals' given their environmental persistence following use as protective, non-stick, and fire-retardant coatings within electronics, textiles, cleaning agents and cookware. There is a shortage of environmental testing globally yet initial human epigenetic studies show reproductive, developmental, liver, kidney and immunological effects[5,6,7] from skin contact or contaminated food or water, meaning there is an increasing need to monitor these pollutants. Furthermore, given there are conflicting, unresolved and unclear accounts of the epigenetic mechanisms of specific PFAS (e.g. DNA methylation with PFOS and PFOA)[7,8], questions remain as to how epigenetic changes occur across the chemical range and for mixtures of PFAS pollutants.

Environmental pollution has been strongly linked to adverse human health outcomes, prompting growing research activity to determine how this leads to disease. Given the breadth of chemicals used in everyday life and their resistance to environmental breakdown, the risk of pollution following release via production, use, residues in goods, ineffective wastewater remediation, and/or leachate from landfill is significant.

In August this year, Microsaic launched a miniaturised mass spectrometer platform, providing fully integrated front-end solutions, and using AI software upgrades from DeepVerge, to achieve triple quad limits of detection for real-time monitoring and identification of organic chemicals in water and soil. Triple Quad limits of detection mean increased sensitivity and specificity, which allows detection and quantification at lower limits than conventional single quad mass spectroscopy.

In collaboration with DeepVerge's environmental division, which has implemented real-time services for the automated detection and identification of metals and pathogens, Microsaic now augments this offering with automated real-time detection and expert analysis of dangerous organic chemicals in water and soil.

The detection capability for a variety of contaminants and toxic "bad actors" adds:

- Organic chemical expertise and detection of Chemicals of Emerging Concern ("CECs"), currently unregulated and unmeasured, with the European Chemical Agency in 2020 identifying 290 chemical candidates for regulatory action by the European Commission[4]
- Significant augmentation to the revenue channels of both Microsaic and DeepVerge without re-engineering their business infrastructure
- Screening - project deployment (e.g. site remediation, clean up, chronic or acute spills), mobile laboratory/van etc.
- Monitoring - site surveillance (e.g. waste water treatment plants, sites of special interest). Substantial value-add to customers, as the retrofit or standalone integration of our combined solutions, including high-tech hardware, software and AI, adds:
    - Unified data handling
    - Unified/integrated sampling strategies
    - Unified front-end to customers installations and collaborations
    - Powerful and accurate analysis of aggregated data with AI delivering the ability to detect an array of targets in a single platform and with predictive alert capability

The new portable Microsaic platform, with Triple Quad limits of detection is unique, bringing laboratory quality performance to the front-line, at a fraction of the cost and up to 90% smaller than traditional Triple Quad mass spectrometers, reducing workflows and allowing manual, or automated decision making in real-time.

Diversified Industries

Microsaic serves selected additional markets where there is a strong "real-world" problem to solve. Examples of markets where our technology is applied include food safety, food contamination and counterfeiting, agrichemical production and explosives detection.

Business Strategy

Following changes to the Board in January this year, Microsaic undertook an immediate strategic review of its markets, business model and operations. With the Company being ideally placed for front-line or on-line screening and monitoring, the Board recognised a clear advantage in combining Microsaic's unique chip-based detection technology with AI capabilities and application software, for multiple/key account installations where real-world problems needed immediate solutions. Such examples are real-time environmental monitoring, high-value manufacturing of therapeutics and real-time drug monitoring.

In March of this year, Microsaic signed a non-binding framework agreement with DeepVerge Plc. This agreement incorporated several facets:

- Utilising DeepVerge's global sales channel, particularly in environmental water monitoring
- Collaborating to combine both companies' technologies and integrating with software, to deliver systems that utilise the capabilities of Microsaic's environmental chemical detection with DeepVerge's environmental pathogen detection

- Creating a joint facility at DeepVerge's site in York, to accelerate collaboration and acting as a customer demonstration facility

Microsaic had historically operated a capital sale model. This period has seen Microsaic transitioning to an annuity model, for its hardware, software and value-adding services.

Outlook

The Board anticipates the sales momentum of H1 to continue in H2 based on its sales pipeline. Potential collaborations and trials with DeepVerge may lead to significant opportunities in environmental water detection.

During the second half of 2021 the Board expects full agreements to be signed with its Chinese Partners for the assembly, distribution and servicing of its product in China, ahead of achieving a medical device licence in China for therapeutic drug monitoring in 2022.

Furthermore, in H2, Microsaic intends to appoint a contract research organisation ("CRO") to undertake cell line work in bioreactors before placing its bioprocessing technology and services with end-user biopharma for beta trials, ahead of expected commercialisation in 2022.

The Company expects to launch a new detection platform in H2, targeting a wider range of chemical contaminants in water. This will further augment the combined chemical/pathogen detection capabilities between DeepVerge and Microsaic.

Glenn Tracey
CEO
27 September 2021

[1]2020 Global Life Sciences Outlook, Deloitte
[2]Report on upstream bioprocessing analytical instrumentation, TDA consultants 2019
[3]China Hospital Industry Report, 2019-2025
[4] https://echa.europa.eu/-/nearly-300-chemicals-identified-as-candidates-for-regulatory-action
[5]EPA, https://www.epa.gov/pfas/basic-information-pfas#difference
[6]Toxicology Department CRCE, PHE 2009 Version 1 , PFOS and PFOA: General Information
[7]Kim, S,.Thapar, I., Brooks, B. W., Epigenetic changes by per- and polyfluoroalkyl substances (PFAS). 2021. Env. Pol. 279: p. 116929.
[8]Kingsley, S.L., Kelsey, K.T., Butler, R., Chen, A., Eliot, M.N., Romano, M.E., et al., 2017. Maternal serum PFOA concentration and DNA methylation in cord blood: a pilot study. Environ. Res. 158, 174e178. etc

Financial Review

Statement of Comprehensive Income:
In H1 2021, total revenues of £499,285 were 594 per cent. or £427,293 above H1 2020 (£71,992) showing a significant recovery from 2020 which was adversely affected by COVID-19. Product revenues increased by £367,474 (H1 2020: Nil) while consumables and spares revenues increased by 79 per cent. and service and support income by 133 per cent.

Gross margin in H1 2021 was 34.3 per cent. This was below the margin achieved in H1 2020 (53.2 per cent.) due to the change in product mix with lower margins on product revenues.

Other operating income in H1 2021 of £47,033 represents furlough grant income for January 2021 and development income. Other operating income in H1 2020 was restated (see note 4) to include furlough grant income of £40,324 for the period April to June 2020.

Operating expenses of £1,216,702 are £308,286 lower than prior year (H1 2020 Restated: £1,524,988). Operating expenses in H1 2020 were restated to exclude the furlough grant income of £40,324 as mentioned above. The reduction in operating expenses included staff related costs which reduced by £81,731 and includes payroll (£56,688), travel (£51,835), and other staff costs (£6,308) but off-set by an increase in recruitment (£33,100). Other reductions included R&D contractors (£127,142), R&D materials and warranty (£65,275), premises (£25,567), and marketing and IP (£31,050). Other expenses increased by £22,479 which included an increase in exceptional costs relating to advisers and legal costs.

The loss from operations, before share-based payments ("SBP") of £998,316 is 31 per cent. lower than the loss recorded in H1 2020 (£1,446,369).

EBITDA Adjusted Loss is a key performance indicator of the Company's profitability. The EBITDA Adjusted Loss in H1 2021 was £838,804 compared with £1,300,902 in H1 2020, an improvement of £462,098. Note 7 details the difference between EBITDA Adjusted Loss and Comprehensive Loss for the period.

The SBP charge in H1 of £1,110,038 (2020: £31,418) is significantly above the prior year. During the period 750 million options/warrants awarded to Directors and a consultant vested within 30 days of their grant after meeting the performance criterion leading to a charge of £1,125,283. Options awarded to staff vest over two years and incurred a SBP charge of £114,774. These charges were partly off-set by the cancelation of existing options of £130,019.

The comprehensive loss of £2,106,925 is 42.4 per cent. higher than H1 2020 (£1,479,949) with the reduction in the loss from operations being off-set by the increase in the SBP charge. The basic loss per share of 0.042p is significantly below last year (H1 2020: 0.32p per share) due to the issue of 5.62 billion ordinary shares at the time of the fundraise in February 2021.

Statement of Financial Position:
Total non-current assets of £204,976 are £42,336 below the December balance. This was mainly due to a reduction of in the right of use assets of £34,367, representing the depreciation charge in the period.

Total current assets of £5,603,025 are £4,243,928 above the December balance. This is mainly due to a higher cash balance at the period end of £4,483,252 (up £4,086,183) following the £5.5 million (before expenses) fundraise in February 2021. Inventories of £377,156 are £192,433 below the December level due to the higher revenues in H1 2021. Trade receivables of £348,722 are £240,193 above the December balance mainly due to higher revenues in June 2021. Other receivables of £206,304 are £82,919 above December due mainly to the higher level of prepayments. The corporation tax receivable of £218,568 was outstanding at 30 June 2021 and received in August 2021 post period end.

Total assets of £5,808,001 are £4,201,592 above December (£1,606,409), mainly due to the higher cash balance as explained above.

Total equity of £5,449,233 is £4,206,253 above December 2020 (£1,242,980). The main movements during the period were the net proceeds from the fundraise of £5,083,140, shares issued in exchange for services of £120,000 plus the SBP charge share of £1,110,038 off-set by the comprehensive loss of £2,106,925.

Current liabilities of £261,489 are £23,192 above the December 2020 balance. Trade and other payables of £245,346 increased by £59,419 (see note 14), partly off-set by the lease liability which reduced by £36,227 to £16,143.

Total non-current liabilities of £97,279 are £27,853 below December 2020. Provisions decreased by £26,756 due to a lower warranty provision.

Statement of Cash Flows:
Cash used in operations in H1 2021 of £924,994 is £395,796 lower than H1 2020, mainly due to the reduction in the comprehensive loss after the adjustment for non-cash items.

The net cash used in operating activities of £924,994 was only £74,211 below H1 2020 as the corporation tax receivable (£218,568) was not received by the period end whereas in H1 2020 it was received in May 2020.

Net cash used in investing activities in H1 2021 of £50,832 (H1 2020: £36,245) increased by £14,587 over last year. The main movements were an increase in the purchases of property, plant and equipment of £893, off-set by a decrease in the purchases of intangibles of £4,053 and lower interest income, of £17,747.

Net cash from financing activities amounted to £5,062,009 which includes net cash raised from the fundraising of £5,083,140, furlough grant income of £17,748, off-set by payments for lease commitments of £38,879.

The net increase in cash at the period end was £4,086,183 giving a closing cash balance of £4,483,252 at 30 June 2021.

Going Concern:
Following the successful fundraise in February 2021 and having considered the plans and prospects of the business, the Board of Directors believes that the Company has enough cash to cover its anticipated working capital requirements for the next 12 months. Therefore, the Directors have adopted the going concern basis of reporting in preparing the financial statements.

Bevan Metcalf
Finance Director and Company Secretary
27 September 2021

STATEMENT OF COMPREHENSIVE INCOME (UNAUDITED)
FOR THE SIX MONTHS ENDED 30 JUNE 2021

	Notes	6 months to 30 June 2021 Unaudited	6 months to 30 June 2020 Unaudited RESTATED	Year to 31 December 2020 Audited
		£	£	£
Revenue	5	499,285	71,992	198,258
Cost of sales		(327,932)	(33,697)	(98,348)
Gross profit		171,353	38,295	99,910
Other operating income		47,033	40,324	96,626
Research and development expenses		(312,755)	(498,817)	(777,597)
Professional fees – Corporate transactions		(65,789)	(39,036)	(149,364)
Other operating expenses		(838,158)	(987,135)	(1,801,321)
Total operating expenses		(1,216,702)	(1,524,988)	(2,728,282)
Loss from operations before share-based payments		(998,316)	(1,446,369)	(2,531,746)
Share-based payments		(1,110,038)	(31,418)	(52,241)
Loss from operations after share-based payments		(2,108,354)	(1,477,787)	(2,583,987)
Financial cost		(1,554)	(5,664)	(10,775)
Finance income		2,983	4,359	4,393
Loss before tax		(2,106,925)	(1,479,092)	(2,590,369)
Tax on loss on ordinary activities		-	(857)	217,711
Total comprehensive loss for the period		(2,106,925)	(1,479,949)	(2,372,658)
Loss per share attributable to the equity holders of the Company				
Basic and diluted loss per ordinary share	6	(0.042)p	(0.32)p	(0.52)p

STATEMENT OF FINANCIAL POSITION (UNAUDITED)
AS AT 30 JUNE 2021

	Notes	30 June 2021 Unaudited £	30 June 2020 Unaudited £	31 December 2020 Audited £
ASSETS				
Non-current assets				
Intangible assets		77,294	94,110	83,763
Property, plant and equipment		112,645	122,870	114,145
Right of use assets		15,037	112,760	49,404
Total non-current assets		204,976	329,740	247,312
Current assets				
Inventories	9	377,156	565,114	569,589
Trade and other receivables	10	524,049	303,510	173,871
Corporation tax receivable		218,568	-	218,568
Cash and cash equivalents		4,483,252	1,534,563	397,069
Total current assets		5,603,025	2,403,187	1,359,097
TOTAL ASSETS		5,808,001	2,732,927	1,606,409
EQUITY AND LIABILITIES				
Equity				
Share capital	11	1,702,913	1,140,913	1,140,913
Share premium	12	28,006,018	24,867,886	24,867,886
Share-based payment reserve	13	2,743,064	438,509	324,264
Retained losses		(27,002,762)	(24,332,442)	(25,090,083)
Total Equity		5,449,233	2,114,866	1,242,980
Current liabilities				
Trade and other payables	14	245,346	339,743	185,927
Lease liability		16,143	-	52,370
Total current liabilities		261,489	339,743	238,297
Non-current liabilities				
Provisions	15	97,279	159,030	124,035
Lease Liability		-	119,288	1,097
Total non-current liabilities		97,279	278,318	125,132
Total liabilities		358,768	618,061	363,429
TOTAL EQUITY AND LIABILITIES		5,808,001	2,732,927	1,606,409

STATEMENT OF CHANGES IN EQUITY (UNAUDITED)
AS AT 30 JUNE 2021

	Notes	Share capital £	Share premium £	Share based-payment reserve £	Retained Losses £	Total equity £
At 1 January 2020		1,140,913	24,867,886	412,539	(22,857,941)	3,563,397
Total comprehensive loss for the period		-	-	-	(1,479,949)	(1,479,949)
Transactions with owners:						
Transfer in respect of lapsed share options		-	-	(5,448)	5,448	-
Share-based payments-share options		-	-	31,418	-	31,418
At 30 June 2020 (unaudited)		1,140,913	24,867,886	438,509	(24,332,442)	2,114,866
At 1 January 2020		1,140,913	24,867,886	412,539	(22,857,941)	3,563,397
Total comprehensive loss for the year		-	-	-	(2,372,658)	(2,372,658)
Transactions with owners:						
Transfer in respect of lapsed/forfeited share options		-	-	(140,516)	140,516	-
Share-based payments-share options		-	-	52,241	-	52,241
At 31 December 2020 (audited)		1,140,913	24,867,886	324,264	(25,090,083)	1,242,980
At 1 January 2021		1,140,913	24,867,886	324,264	(25,090,083)	1,242,980
Total comprehensive loss for the period		-	-	-	(2,106,925)	(2,106,925)
Transactions with owners:						
Shares issued	11/12	562,000	5,058,000	-	-	5,620,000
Share issue costs	11/12	-	(1,919,868)	1,503,008	-	(416,860)
Transfer in respect of cancelled/forfeited share options		-	-	(194,246)	194,246	-
Share based payments-share options		-	-	1,110,038	-	1,110,038
At 30 June 2021 (unaudited)		1,702,913	28,006,018	2,743,064	(27,002,762)	5,449,233

STATEMENT OF CASH FLOWS (UNAUDITED)
FOR THE SIX MONTHS ENDED 30 JUNE 2021

	Notes	6 months to 30 June 2021 Unaudited	6 months to 30 June 2020 Unaudited	Year to 31 December 2020 Audited
		£	£	£
Total comprehensive loss for the period		(2,106,925)	(1,479,949)	(2,372,658)
Amortisation of intangible assets		20,133	20,818	40,767
Depreciation of right of use assets		34,367	45,156	87,237
Depreciation of property, plant and equipment		39,222	40,457	80,034
Transfer of property, plant and equipment to cost of goods		23,867	-	-
Profit on disposal of right of use assets		-	-	(1,426)
Decrease in provision for warranty		(26,756)	(2,071)	(12,713)
(Decrease)/Increase in provision for expected credit losses		(18,532)	8,059	64,281
Provision for redundancy		-	24,353	-
Share-based payments		1,110,038	31,418	52,241
(Decrease)/Increase in inventory provision		(10,442)	-	17,650
Tax on loss on ordinary activities		-	857	(217,711)
Interest on lease liability		1,554	5,492	9,041
Interest received		(2,983)	(4,359)	(4,393)
Fees shares issued		47,664	-	-
Accrued furlough income		-	-	(17,748)
Decrease/(Increase) in inventories		202,883	(178,873)	(200,998)
(Increase)/Decrease in trade and other receivables		(298,503)	118,672	209,838
Increase/(Decrease) in trade and other payables		59,419	49,180	(104,636)
Cash used in operations		(924,994)	(1,320,790)	(2,371,194)
Corporation tax received		-	321,585	321,584
Net cash used in operating activities		(924,994)	(999,205)	(2,049,610)
Cash flows from investing activities				
Purchases of intangible assets		(13,664)	(17,717)	(27,319)
Purchases of property, plant and equipment		(39,493)	(38,600)	(69,452)
Interest received		2,325	20,072	20,106
Net cash used in investing activities		(50,832)	(36,245)	(76,665)
Cash flows from financing activities				
Proceeds from share issues		5,500,000	-	-
Share issue costs		(416,860)	-	-
Furlough grant income received		17,748	-	-
Payments relating to lease commitments		(38,879)	(50,745)	(97,414)
Net cash from/(used in) financing activities		5,062,009	(50,745)	(97,414)
Net increase/(decrease) in cash and cash equivalents		4,086,183	(1,086,195)	(2,223,689)
Cash and cash equivalents at beginning of the year		397,069	2,620,758	2,620,758
Cash and cash equivalents at the end of the period		4,483,252	1,534,563	397,069

NOTES TO THE INTERIM FINANCIAL INFORMATION (UNAUDITED)

1. Nature of Operations

Microsaic Systems plc (the "Company") is registered in England and Wales. The Company's registered office is GMS House, Boundary Road, Woking, GU21 5BX. The Company has no subsidiaries, so the financial information relates to the Company only. Microsaic is a high technology company developing compact, chip-based mass spectrometers that are designed to improve the efficiency of pharmaceutical R&D.

2. General Information

The interim financial information has been prepared in accordance with international accounting standards in conformity with the requirements of the Companies Act 2006. The accounting policies, methods of computation and presentation used in the preparation of the interim financial information are the same as those used in the Company's audited financial statements for the year ended 31 December 2020.

The interim financial information in this statement does not constitute full statutory accounts as defined by Section 434 of the Companies Act 2006 and has not been audited.

The interim financial information for the six months to 30 June 2021 has been prepared using extracts from the financial statements prepared for the year ended 31 December 2020. Those financial statements have been filed with the Registrar of Companies. The auditor's report on those financial statements was unqualified.

3. Basis of preparation

The financial statements are presented in GB Pounds Sterling. The financial information has been prepared on the historical cost basis, except where financial instruments are required to be carried at fair value under IFRS. The financial information has been prepared on a going concern basis.

4. Restated figures for H1 2020

The COVID-19 furlough grant from the Government was reported as a reduction in employment costs at 30 June 2020. At 31 December 2020 the furlough grant was treated as other operating income. Therefore, to be consistent with the treatment adopted at the year end the figures for the 6 months to 30 June 2020 have been restated. Other operating income has been restated from nil to £40,324 and operating expenses has been increased by £40,324 to £1,524,988. In addition, at 31 December 2020 professional fees related to one-off corporate transactions were shown separately on the face of the statement of comprehensive income. For consistency purposes this treatment has been adopted for the 6 months ended 30 June 2020 and £39,036 has been shown separately on the face of the statement of comprehensive income.

5. Revenues

Throughout H1 2021, the Company operated in one business segment, that of research, development and commercialisation of mass spectrometry instruments. The attribution of revenue is based on the country or group of countries to where the goods are shipped. Our largest customer represented 33.9% of total revenue in H1 2021 (H1 2020: 54.5%) and our second largest customer represented 15.5% of total revenue (H1 2020: 13.1%).

The geographical analysis of revenues (by location of shipment) was as follows:

	6 months to 30 June 2021 Unaudited £	6 months to 30 June 2020 Unaudited £	Year to 31 December 2020 Audited £
UK	220,192	-	2,225
Japan	-	8,756	8,756
USA	130,960	38,796	41,346
Europe	42,057	21,335	57,280
China	106,076	-	126
South Korea	-	-	83,397
Rest of World	-	3,105	5,128
	499,285	71,992	198,258
Revenue by Product Group:			
Product/Unit	367,474	-	83,397
Consumables and spares	119,641	66,766	105,135
Service and support income	12,170	5,226	9,726
	499,285	71,992	198,258

6. Loss per share

	6 months to 30 June 2021 Unaudited	6 months to 30 June 2020 Unaudited	Year to 31 December 2020 Audited
Comprehensive loss attributable to equity shareholders (£)	(2,106,925)	(1,479,949)	(2,372,658)
Weighted average number of ordinary 0.01p (2020: 0.25p) shares for the purpose of basic and diluted loss per share	4,989,624,815	456,365,146	456,365,146
Basic and diluted loss per ordinary share	(0.042)p	(0.32)p	(0.52)p

The basic loss per share of 0.042p is significantly below last year (H1 2020: 0.32p per share) mainly due to the issue of 5.62 billion shares at the time of the fundraise in February 2021.

Potential ordinary shares are not treated as dilutive as the Company is loss making, therefore the weighted average number of ordinary shares for the purposes of the basic and diluted loss per share are the same.

7. EBITDA Adjusted Loss

A key indicator of performance for the Company in 2021 is EBITDA Adjusted Loss (Loss of earnings before interest, tax, depreciation, amortisation and other items such as share-based payments and exceptional one-off expenditure). Detailed below is the EBITDA Adjusted Loss for the period:

	6 months to 30 June 2021 Unaudited	6 months to 30 June 2020 Unaudited RESTATED	Year to 31 December 2020 Unaudited
	£	£	£
Comprehensive loss for period	(2,106,925)	(1,479,949)	(2,372,658)
Adjust for:			
Tax on loss on ordinary activities	-	857	(217,711)
Depreciation of property, plant and equipment	39,222	40,457	80,034
Depreciation of right of use assets	34,368	45,156	87,237
Amortisation of Intangibles	20,133	20,818	40,767
Net finance cost	(1,429)	1,305	6,382
Share-based payments	1,110,038	31,418	52,241
Exceptional costs	65,789	39,036	149,364
EBITDA Adjusted Loss	(838,804)	(1,300,902)	(2,174,344)

8. Employees and employment related costs

Staff Numbers	6 months to 30 June 2021 Unaudited	6 months to 30 June 2020 Unaudited RESTATED	Year to 31 December 2020 Audited
Directors	4	5	5
Other staff	17	22	21
Average Headcount	21	27	26
	£	£	£
Employment costs (including Directors)			
Wages and salaries	590,195	627,586	1,081,201
Social security costs	67,452	58,224	121,141
Termination payments	-	24,353	58,283
Pension costs	80,296	86,769	153,476
Employment related share-based payments	1,110,038	31,418	52,241
	1,847,981	828,350	1,466,342

The 6 months to 30 June 2020 figures have been restated to reflect the furlough grant income (£40,324) as other operating income rather than a reduction in employment costs. This treatment is consistent with the audited figures for the year ended 31 December 2020.

9. Inventories

	30 June 2021 Unaudited £	30 June 2020 Unaudited £	31 December 2020 Audited £
Raw materials	235,904	268,292	262,506
Work in progress	-	7,616	-
Finished goods	188,413	329,160	364,687
Subtotal	424,317	605,068	627,193
Provision for inventories	(47,161)	(39,954)	(57,604)
Total	377,156	565,114	569,589

Inventories reduced significantly from the balance at the 30 June 2020 and 31 December 2020 due to a recovery in sales during H1 2021.

10. Trade and other receivables

	30 June 2021 Unaudited £	30 June 2020 Unaudited £	31 December 2020 Audited £
Amounts falling due within one year			
Trade receivables	348,722	94,490	108,529
Provision for expected credit losses	(30,977)	(12,365)	(68,587)
Other receivables	206,304	209,681	123,385
Other taxes	-	11,704	10,544
	524,049	303,510	173,871

Trade receivables are significantly above both 30 June 2020 and 31 December 2020 as a result of higher sales in H1 2021 and particularly in June 2021. The overdue balance at 30 June 2021 relates to the same customer outstanding at the 31 December 2020. The reduction in the balance for this customer from £68,174 to £27,000 reflects the recovery of one of the units sold and a part write-off of the outstanding balance.

11. Share capital

	30 June 2021 Unaudited £	30 June 2020 Unaudited £	31 December 2020 Audited £
Allotted, issued and fully paid Ordinary shares of 0.01p each (2020: 0.25p each):			
Opening balance	1,140,913	1,140,913	1,140,913
Shares issued in the period	562,000	-	-
Closing balance	1,702,913	1,140,913	1,140,913

On 5 February 2021 the Company undertook a share reorganisation reducing the nominal value of ordinary shares from 0.25p to 0.01p per share. Part of the share reorganisation involved the creation of deferred shares with a nominal value of 0.24p per share. Each deferred share will have very limited

rights and will effectively be valueless. Also, on 5 February 2021 5,620,000,000 ordinary shares were issued for cash and services. The nominal value of these shares amounted to £562,000. The nominal value of the ordinary shares is £607,637. Deferred shares of 456,365,146 have a nominal value of £1,095,276. The number of ordinary shares in issue at the period end is 6,076,365,146 (2020: 456,365,146).

12. Share Premium

	30 June 2021 Unaudited £	30 June 2020 Unaudited £	31 December 2020 Audited £
Opening balance	24,867,886	24,867,886	24,867,886
Shares issued in the period	5,058,000	-	-
Share issue costs – Cash	(416,860)	-	-
Share issue costs – Broker Warrants	(1,503,008)	-	-
Closing balance	28,006,018	24,867,886	24,867,886

The fundraising on 5 February 2021 raised a total of £5.5 million (before expenses) at a placing price of 0.1p per share. The placing raised £5 million and the broker warrant £0.5 million, before expenses. The share premium on the fundraising was the placing price of 0.1p per share less the nominal value of 0.01p per share multiplied by the number of shares issued. The cash costs amounted to £416,860 including broker commissions and fees, legal fees etc. In addition, 997,000,000 broker warrants were issued to Turner Pope Investments (TPI) Ltd at a fair value of £1,503,008.

13. Share-based Payments Reserve

	Options £	Warrants £	Total (Unaudited) £
Balance at 1 January 2021	324,264	-	324,264
Broker Warrants issued	-	1,503,008	1,503,008
Share-based payments charge	1,110,038	-	1,110,038
Forfeited/Cancelled options	(194,246)	-	(194,246)
Balance at 30 June 2021	1,240,056	1,503,008	2,743,064

14. Trade and other payables

	30 June 2021 Unaudited £	30 June 2020 Unaudited £	31 December 2020 Audited £
Amounts falling due within one year:			
Trade payables	80,692	141,930	63,034
Other taxes and social security	37,558	31,960	29,174
Other payables	31,231	13,491	11,278
Accruals and deferred income	95,865	152,362	82,441
	245,346	339,743	185,927

Total trade and other payables at 30 June 2021 are £94,397 below 30 June 2020, but £59,419 above 31 December 2020 balance. Other payables at 30 June 2021 included VAT of £15,976.

15. Provisions

	Dilapidations	Warranty	Total unaudited
	£	£	£
Balance at 1 January 2021	75,779	48,256	124,035
Charges against provisions	-	-	-
Provided for/(Reduction) during the period	-	(26,756)	(26,756)
Balance at 30 June 2021	75,779	21,500	97,279

The dilapidations provision remains unchanged from 31 December 2020 balance. The warranty provision methodology was updated to more closely reflect those MS products under warranty and takes into account the Company's historically low incidence of warranty claims.

16. Share options

The Company operates an Enterprise Management Incentive ("EMI") scheme and an Unapproved Share Option scheme as a means of encouraging ownership and aligning interests of staff and shareholders. The table below shows the number of options outstanding and exercisable at 30 June 2021 and the weighted average exercise price.

	6 months to 30 June 2021 Unaudited		6 months to 30 June 2020 Unaudited		Year to 31 December 2020 Audited	
	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
Outstanding at the beginning of the year	17,475,000	5.1p	18,644,000	5.2p	18,644,000	5.2p
Granted during the period	1,125,000,000	0.1p	-	-	-	-
Forfeited/Cancelled during the period	(17,475,000)	5.1p	(240,000)	10.8p	(1,169,000)	6.0p
Exercised during the period	-	-	-	-	-	-
Outstanding at period end	1,125,000,000	0.1p	18,404,000	5.1p	17,475,000	5.1p
Exercisable at period end	750,000,000	0.1p	2,804,000	13.3p	4,375,000	9.8p

Options amounting to 1.125 billion ordinary shares were awarded to Directors, staff and a consultant on 5 February 2021, at the time of the fundraising. Staff and Directors agreed to cancel existing options prior to the award of new options as these options were all out-of-the-money. The new options granted are exercisable at the placing price of 0.1p for five years from the 5 February 2021. 750 million options granted to Directors and a consultant vested during the period as the performance criterion that the Company's ordinary shares traded at a VWAP at or above a 50 per cent. premium to the placing price for 20 consecutive business days, was achieved. The staff options are exercisable two years from the date of grant as long as the optionee is still an employee of the Company.

17. Warrants

Broker warrants to subscribe for up to 997,000,000 ordinary shares, which represented 20 per cent of the placing shares, were granted to Turner Pope Investments (TPI) Ltd as part of the fundraising on 5 February 2021. The broker warrants are capable of exercise for a period of two years from 5 February 2021. The fair market value of the warrants was calculated at £1,503,008.

18. Commitments

As at 30 June 2021, purchase commitments with our manufacturing supplier for mass spectrometry materials, parts and components contracted for but not included in the financial statements amounted to £367,173 (31 December 2020: £426,595).