

Stock Data

Share Price:	1.35p
Market Cap:	£2.42m
Shares in issue:	179.18m
52 week high/low:	43.75p/1.26p

Company Profile

Sector:	Electronic & Electrical Equipment
Ticker:	MSYS
Exchange:	AIM

Activities

Microsaic Systems plc ('Microsaic', 'MSYS', 'the Group') is a high technology company which develops micro-electronic instruments and analytical solutions, including point-of-need Mass Spectrometers, designed to improve the efficiency of chemical and biological workflows.

Website: www.microsaic.com

5-year Share price performance


Source: [LSE](https://www.lse.com)

Past performance is not an indication of future performance.

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Microsaic Systems plc

Microsaic, on Friday 16 February, provided an update detailing progress following its recent acquisition of certain assets and intellectual property of the Modern Water business (the 'Acquisition'), whose integration is going ahead as planned. The same release also detailed new servicing arrangements for the Group's mass spectrometry ('MS') products, including miniaturised PFAS ('forever chemicals') detection equipment that is built around its 4500MiD® units and attracting significant market interest from original equipment manufacturers ('OEMs') and suppliers. The Board is now actively resetting both parts of the business, with a view to driving growth and increasing efficiencies, with initial focus on point of need environmental testing of water, including detection of toxic/potentially carcinogenic chemicals.

Modern Water laboratory and production facilities reactivated

Following completion of the Acquisition on 25 January, Modern Water's laboratory and production facilities have been reactivated at Sand Hutton, in York. The Company has re-engaged specialist staff and moved operations to a smaller, more cost-efficient part of the York Biotech Campus. The Board expects to have initial stocks of MicroTox® reagents available for release by the end of this month, once full quality criteria have been met, including shipping availability of manufactured reagents in April. Orders continue to be received from existing repeat customers, along with various enquiries from those seeking to renew supplies of reagent and other consumable kits for their testing equipment.

Modern Water has also begun marketing Sulphate Reducing Bacteria Test kits and will be quality checking their initial production in the coming weeks, before making them available for purchase. The Company is committed to maintaining the highest quality and consistency of supply and service for its market-leading MicroTox® brand and associated products.

PFAS equipment attracting significant market interest

Microsaic continues to make good progress with the mass spectrometry part of its business. Outsourced manufacturing of the 4500MiD®, which combine the vacuum system, electronics and computer inside a single MS unit, continues at Kingfield Electronics in Chesterfield. In addition, a MS servicing capability has also been set up in collaboration with a new partner Jaytee Biosciences, in Herne Bay, Kent.

The Group's miniaturised per- and polyfluorinated substances ('PFAS' or 'forever chemicals') detection equipment, which is built around the 4500MiD®, is attracting significant market interest from OEMs and suppliers. A complete PFAS system is undergoing stage 1 testing with a large OEM in the United States which has leading domestic sales and worldwide distribution capabilities. Microsaic is working with them to optimise the PFAS system for commercial use after stage 1 testing has completed, which is expected to be in Q2 2024. The Group will provide a further update in due course regarding the planned evaluation of its bioprocessing solution, ProteinID, by a European OEM ahead of field trials expected later this year.

Placing proceeds providing working capital buffer while supporting growth initiatives

The net proceeds of Microsaic's oversubscribed Placing, as announced on 15 January 2024, were estimated to be c.£1.8m, (plus any monies to be received by the Group pursuant to the exercise, if any, of the Broker Warrants). It proposed to use these funds as a further working capital buffer and also in respect of certain growth initiatives – possibly including commercialisation of new products in ProteinID and PFAS detection through distribution partners, and other targeted opportunities in support of both the original MSYS business and the restarted acquired operations. Early cashflow from imminent sales of MicroTox[®] reagents will help underpin working capital requirements.

Friday's news confirms good progress is already being made in each of these areas, while the Board stresses its stated intention to maintain a low fixed cost base going forward supported through utilisation of new and existing outsourcing agreements.

Acquisition of Modern Water business previously operated by DeepVerge plc

Microsaic had worked closely with Modern Water and its parent company, DeepVerge, since 2021. It initially provided technical services, including MS, to meet various water quality monitoring challenges together with R&D services. These were later expanded to include a framework agreement, including an initial contract worth £0.4m from Innovenn UK, another division of DeepVerge that instead focused on microbiology, skin models, and clinical testing solutions. A high level of operational synergy and interdependence were generated as their complementary technologies combined to deliver ground-breaking, real-time monitoring and detection capabilities. In this respect, Microsaic is highly familiar with the opportunities presented through Modern Water's water/wastewater business plan along with additional potential to provide biopharma preclinical/clinical testing (including its recently redesigned novel ProteinID technology) and monitoring of toxic per- and polyfluoroalkyl substances ('PFAS' or 'Forever Chemicals'). The European Commission is proposing to ban all such large, complex groups of synthetic substances that have been used in consumer products around the world since the 1950s, given that they are persistent, can be toxic, and can bioaccumulate in organisms, including people. Also, the United States Environmental Protection Agency ('EPA') is highly active about PFAS and has recently increased mandatory detection requirements and monitoring with more PFAS chemicals added to the US Toxic Release Inventory. PFAS measurement requirements of the EPA using point of need monitoring can be met by Microsaic's PFAS technology assuming commercial testing is successful.

The Acquisition will provide Microsaic with access to high margin reagents used in the installed base of Modern Water's MicroTox[®] branded water testing machines. With DeepVerge having been unable to fulfil demand from its existing client base, Microsaic is restarting manufacture of the product range shortly, using a retained core technical team that brings significant expertise and client relations. This is expected to ease a current bottleneck and quickly provide valuable revenues, possibly including a contract value of over €500,000 from the Middle East region that is being reinstated and due after Modern Water's Continuous Toxic Measuring (MicroTox[®] CTM) equipment is commissioned, as well as recommencing regular supply of reagents to its international installed base of users.

Significant historic investment and revenue generation

AIM-quoted Modern Water plc was acquired by DeepVerge in 2020 for £16m in an all-paper deal. By end-December 2019, however, this international and high-reputation business had accumulated total losses of c.£43m while generating annual turnover of c.£3m (which was then principally from consumables). Following its acquisition, DeepVerge transformed its operational structure from a manufacturing partnership to a service-based model, modernising its offering to include connected and AI-based semi-permanent installations capable of predictive and real-time alerts. Clearly presenting the highest business potential across DeepVerge's divisional portfolio, Microsaic acquired these same assets for just £100,000 cash plus working capital. Although DeepVerge never published its full year 2022 accounts, following restatement of works completed during the period under IFRS 15, on 17 April 2023

management nevertheless reported revenues for the period would likely be in the range of £7.7m to £8.6m, while apparently also holding a forward order book for both Modern Water and its engineering subsidiary, Glanaco, that exceeded £10m. Unfortunately, we cannot now assume that the real picture was anything close.

Originally quoted on AIM in 2011, Microsaic's business plan centred around its development of patented, mobile and miniaturised MS instruments. In terms of money invested over this period, the Group had accumulated c.£28m carried-forward losses by end-December 2021. Its core products presently include the compact MiD series of instruments designed to be fast and easy to use, but still capable of delivering high quality spectrum analysis. Full year 2022 accounts from Microsaic detailed revenues of £1.57m, compared with the £0.91m recorded in FY2021, demonstrating the potential of this fledgling business area. Within this, DeepVerge comprised £1.29m (2021: £67k) and its subsequent default is considered the primary reason for both Microsaic and Modern Water floundering during 2023.

This will undoubtedly have damaged their reputations and, in some cases, may even have resulted in the void created being occupied by competing businesses. Nevertheless, the scale of the prospective international opportunity has recently been highlighted in releases/publications from various governmental agencies and health institutes that recognise both the important and convenience of long-term, anonymous tracking of COVID-19 and its variants plus other viruses/contaminants that can be offered through monitoring of wastewater across the developed world. In this respect, the real-time surveillance solution offered by Modern Water, when combined with advanced AI/predictive technologies, appears to lead the field in terms of enabling rapid identification and early resolution of local outbreaks ahead of potential progression into uncontained pandemics. Modern Water could potentially find its detection solutions ideally positioned should, for example, western governments consider imposing a requirement for the full-time installation of such equipment at regional processing plants through national regulation.

Acquired Modern Water asset's product offering

Modern Water is expert in the design, development and provision of analytical instruments and technologies for monitoring toxicity in water, soil, food and industrial facilities. They can be operated at connected municipal, regional or local levels, in open or closed environments. Its systems use bioluminescent bacteria to perform biosensor testing that detects the presence of an exhaustive range of toxic substances, including bacteria and viruses. The Company's Microtox[®] products are the first and only acute toxicity reagent to be manufactured in an ISO9001 certified facility.

Biosensor tests using bioluminescent bacteria have been in use for more than 30 years and their capability in detecting toxic substances is well understood. They use the principle that certain strains emit light when healthy. When they are exposed to toxic substances, the amount of light emitted reduces, indicating both presence and concentration in a sample. Being industry-leading, Modern Water's technology is supported by numerous scientific and academic papers.

Its product range includes the MicroTox[®] LX toxicity test system, which is an industry standard for laboratory-based rapid toxicity screening and analysis; MicroTox[®] FX, which is a portable, acute toxicity analyser, along with the newer MicroTox[®] CTM which is a site-based, broad range Continuous Toxicity Monitor. Available to users through a service agreement that can provide online connection, full-time monitoring and support plus supply of consumables, such contracts are found to be highly sticky and operate for extended durations.

Current trading and financial position

Having resolved the supply chain issues that hindered operations during 2022, Microsaic's MS production restarted in May 2023, with seven units shipped by the end of 2023 (compared with 5 in 2022 and 19 in 2021). Despite the significant cost reduction exercise announced on 3 November 2023, the Group remained an operating business, with access to sufficient resources (including external contractors) to maintain limited production and the continuation of existing trading relationships. At the end of 2023, it retained an equipment sales pipeline of approximately 19

units in addition to service and spares revenue.

Although it is unlikely that all of these prospective sales will become firm orders in the short-term, the Board considers that the Group's cost base, excluding costs attributable to remaining a public company, are at a level such that they can be supported by a similar level of unit sales to 2022 and 2023. With cash balances of roughly zero as of 31 December 2023, the Revised Fundraise should provide sufficient working capital to sustain and progress the enlarged operations, together with associated marketing plus an element of contingency.

A further modest cash inflow in the range of c.£250,000 may be received during 2024 in the event that the Group is successful in its latest R&D tax credit claim, although such benefit may be offset by other contingencies (including the possibility of a fine from the London Stock Exchange in relation to the timing of disclosure of the amount outstanding from DeepVerge plc).

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