Microsaic Systems

Transforming bioprocessing at the point of need

Year end results 2017

Chairman:	Peter Grant
CEO:	Glenn Tracey
FD:	Bevan Metcalf

March 2018

Forward looking statements

This presentation contains forward-looking statements regarding the Company's plans, expectations, estimates and beliefs. Forward-looking statements are typically identified by words such as "believes," "anticipates," "intends," "will," "may" and other similar expressions. These forward-looking statements may include, among other things, projections of the Company's financial performance, anticipated growth, characterization of and the Company's ability to control contingent liabilities, and anticipated trends in the Company's businesses. These statements are only predictions, based on the Company's current expectation about future events. Although the Company believes the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, performance or achievements or that predictions or current expectations will be accurate. These forward-looking statements involve risks and uncertainties.

The Board

Peter Grant – *Non Executive Chairman (appointed January 2018)*

40 years experience, half at listed company board level, covering both London main market (up to FTSE 250) and AIM, including CEO of Skyepharma PLC, CFO of Skyepharma PLC, Chief Financial Officer at WorldPay Group plc, Group Chief Executive at Molins PLC and Finance Director at Molins PLC and various senior positions at The General Electric Co. PLC Group.

Glenn Tracey – *Chief Executive Officer (appointed CEO September 2017)*

>20 years' experience in scientific instruments, including human and environmental health. Previously at global life sciences company PerkinElmer. Joined in March 2015, appointed to the Board in December 2015

Bevan Metcalf – *Finance Director*

35+ years' of financial management experience in pharmaceuticals and mining, including ICI, GlaxoSmithKline and Orion Pharma, as well as AIM companies. Member of the Chartered Accountants (Australia and NZ). Appointed FD in December 2015.

Eric Yeatman – *Non-Executive Director*

Co-founder and former Chairman of the Board (2004-2013). Professor of Micro-Engineering at Imperial College London and Head of Department of Electrical and Electronic Engineering.

Andrew Holmes – *Non-Executive Director & Company Secretary*

Co-founder and Professor of Micro-Electro-Mechanical Systems at Imperial College London where he specialises in microfabrication and micropower technologies.

Christopher Buckley – *Non-Executive Director*

30+ years' of international marketing and strategic management experience in the global pharmaceutical industry with a proven track record of translating scientific innovations into competitive customer-focused benefits. Most recently, Global Brand Director at Novartis.

Chairman’s statement

- Clear vision & strategy with experienced management
- Targeting high growth markets in biopharma
- Strong collaboration with foremost company in scientific instrumentation for bioprocessing
- Partnership approach to creating OEM pipeline
- Strong IP portfolio, commercialised footprint, and pragmatic R&D pipeline linked to future market growth

About Microsaic Systems

- Founded as a spin-out from Imperial College
- Bench-top Mass Spectrometry (MS) products based on patented chip technology (>60 patents)
- 4000 MiD® launched 2013, 120 instruments in the field in small molecule detection
- 4500 MiD® launching H1 2018
- Key target is high growth opportunities in bioprocessing
- In-house skills include R&D, application scientists

Microsaic 4500 MiD®

MS is an analytical technique of choice for biochemists across many industry sectors

Identification of molecules by mass, rapidly and with high precision

Route to market

- Partner with established global brands in preparative and purification science with expertise in Pharma and Biopharma
- OEM model: Co-development of unique integrated solutions combining Microsaic's bench-top mass spectrometers with partner products for specific applications
- Leverage partners' global marketing, sales and service channels

Previous focus: compact MS in small molecule detection

The need we satisfy

We help Pharma companies realise efficiency goals (quicker/cheaper) in analytical science

How we do it

We partner with global separation and purification companies (OEMs) to develop integrated solutions for Pharma

What we do

A technology solution provider delivering applications though our point-of-analysis MS instruments

Two “future market” drivers for strategic change

Shift in therapeutic focus from small to larger molecules (peptides, antibodies, proteins)	Separation, purification and identification of larger molecules during drug development and scale-up manufacturing
Improving biopharma productivity by ensuring product compliance	Powerful methods of analysis to enable earlier decision making relating to product identification, purity and bioactivity

Strategic choice: why bioprocessing?

Bioprocessing uses biological machines (e.g. cells) to make drugs (biologics)

Biologic drugs are top-selling products

. No	Product	Active Ingredient	Main Therapeutic Indication	Company	2016 Revenue in Millions (USD)	2015 Revenue in Millions (USD)	Sales Difference in Millions (USD)
1	Humira	Adalimumab	Immunology (Organ Transplant, Arthritis etc.)	Abbvie	16,078	14,012	2,066
2	Harvoni	Ledipasvir and Sofosbuvir	Infectious Diseases (HIV, Hepatitis etc.)	Gilead	9,081	13,864	-4,783
3	Enbrel	Etanercept	Immunology (Organ Transplant, Arthritis etc.)	Amgen/Pfizer Inc.	8875	8697	178
4	Remicade	Infliximab	Immunology (Organ Transplant, Arthritis etc.)	Johnson & Johnson/Merck & Co	8,234	8,355	-121
5	MabThera/Rituxan	Rituximab	Oncology	Roche	7227	6974.55	252
6	Revlimid	Lenalidomide	Oncology	Celgene	6,974	5,801	1,173
7	Avastin	Bevacizumab	Oncology	Roche	6,715	6,617	98
8	Herceptin	Trastuzumab	Oncology	Roche	6,714	6,473	242
9	Lantus	Insulin Glargine	Diabetes	Sanofi	6,057	6,773	-717
10	Prevnar/Prevenar 13	Pneumococcal 7-Valent Conjugate	Anti-bacterial	Pfizer Inc.	5,718	6,246	-528

SGS Global, Apr 2017

- 8 of top 10 drugs sold in 2016 were biologics
- Expected biologics revenue, 2019 $445Bn*

**Global life sciences outlook, Deloitte, 2016*

Industry needs

- Pressure on biopharma industry to make less expensive, safer biologic drugs and ensure reliable and sufficient capacity Costs ~$2Bn** to develop a biologic drug
- FDA/EMA regulators want QbD***

MS applications can help address these needs

Opportunity for Microsaic

- Market value of biologics equipment in bioprocessing estimated at $4-10Bn with CAGR of 15-18%****
- Strong market-pull for mass spectrometry in bioprocessing: Market >$2Bn*****
- Attractive area to develop profitable partnerships

** *Tufts centre for the Study of Drug Development, Nov 2014*
*** *Quality by design*
**** *Various investor relations reports, 2016, less estimated reagents volume*
***** *ThermoFisher Scientific 2017 Investor Presentation*

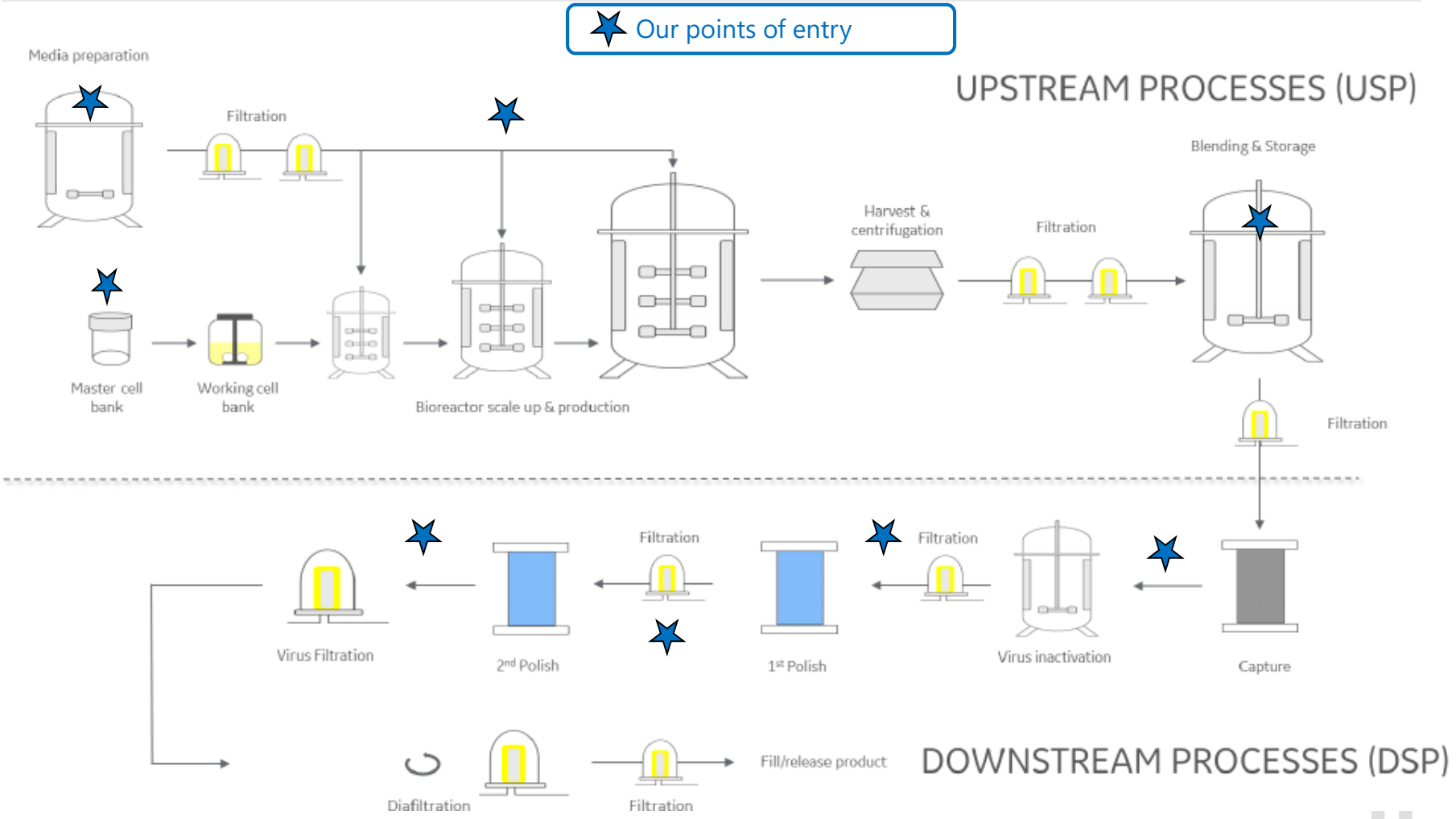
Key Achievements in 2017

- Successfully completion of technical feasibility phase, and signing of a technical integration phase with foremost player
- Collaborations with UK and US leaders in bioprocessing technology, to inform further OEM discussions, and wider application opportunities
- Product development completed for the 4500 MiD®, with extended mass range specifically designed for peptide and small protein detection
- Memorandum of Understanding signed to outsource Company's manufacturing, increasing capacity, and focussing future investment on product innovation
- Cost reduction programme implemented in Q1, reducing non-R&D headcount and leading to a reduction in operating expenses of £616,704 compared with 2016.

Opportunities in the traditional market

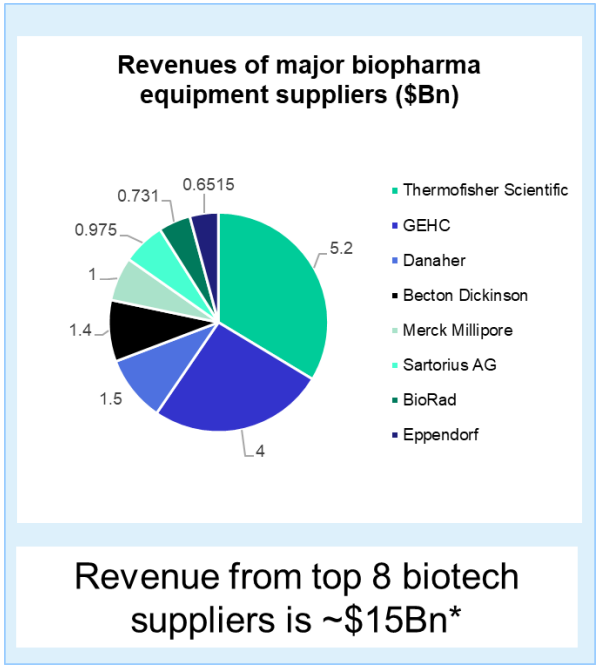
- 4500 MiD® launches in H1 2018, supported by a OEM product launch during H2 2018
- Increased ability to measure small molecules, and now metabolites, peptides and small proteins
- Pipeline of new OEM and distributor discussions progressing, in US, EU and Asia
- Wide range of complimentary OEM partnership opportunities, including techniques such as: CE-MS, TLC-MS, nano-LC-MS, LC-MS, and our standalone MiDAS-MS, prep-LC-MS, flow reaction monitoring

Multiple product possibilities in bioprocessing



Opportunities in bioprocessing

- Current phase progress with global partner, target completion H2 18
- Working with two established institutions to generate data to seek further collaborations with bioprocessing OEMs



Our value proposition to the OEM:

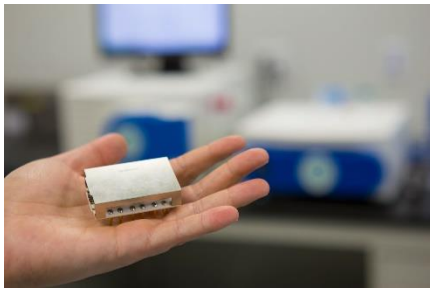
- Flexible configuration & multi-application
- Identify & quantify reagents, products and contaminants, *but rapidly and real time and on the production line*
- Sensitive, accurate & reliable lab-calibre data, but at the point of need
- Rapid, designed to be easy to use by production operatives
- Plug and play, low maintenance & cost effective, *an industry first*

Product Development 2018

- 4500 MiD® launch 2018, extended mass range our reach into peptides and small proteins

- Advanced prototype of completely tool-less operation, H1 2018

- Bioprocessing proof of concept product, H2 2018



Future product development

- Extended product portfolio
- Widened mass range to detect whole biologics
- Greater sensitivity to enable wider application for bioprocessing
- Software and hardware ease of use, to reduce planned product maintenance and increase bioprocessing efficiency
- Data driven analytics to optimise bioprocessing workflows

Financials - Revenues

£000s	H1 2017	H2 2017	2017	2016
Units	2	5	7	27
Products	69	160	229	724
Consumables	44	53	97	88
Other	16	-	16	39
Total	129	213	342	851

Revenues disappointing; difficult trading conditions in small molecule markets - highly competitive; hence the focus on large molecule opportunities

Revenues picked up in H2.

Financials – Comprehensive Income

£000s	2017	2016
Revenue	**342**	**851**
Cost of sales	**(221)**	**(549)**
Gross Profit	**121**	**302**
Gross margin %	***35.4%***	***35.5%***
Other operating income	**51**	**56**
Operating expenses	**(3,049)**	**(3,666)**
Loss from Operations	**(2,877)**	**(3,308)**
Share based payments	**(30)**	**(110)**
Finance income	**19**	**12**
Loss before tax	**(2,888)**	**(3,406)**
Tax	**245**	**304**
Comprehensive loss	**(2,643)**	**(3,102)**
Loss per share	**(1.46)p**	**(2.93)p**

Revenue falls by 60% due to difficult trading conditions in small molecule detection; focus on biopharma strategy

Income of £47k from one of the foremost players in bioprocessing

R&D represents 29.3% of operating expenses in 2017 Operating expenses reduced by 17% in the year

Loss before tax reduced by £0.5M

Financials – Financial Position

£000s	2017	2016
Non-current assets	227	282
Cash	3,182	5,729
Inventories	483	694
Other current assets	481	426
Current assets	4,146	6,849
Total Assets	4,373	7,131
Total Equity	3,900	6,513
Total Liabilities	473	618
Total Equity and Liabilities	4,373	7,131

Cash in line with projections at 2016 fundraising

Inventories reduced; provision for obsolete stock with launch of 4500 MiD® in 2018.

Trade payables and accrual reduced by £166k; deferred income £37k re phase 2 co-development

Financials – Cash Flow

£000s	2017	2016
Net cash used in operating activities	(2,451)	(2,796)
Net cash used in investing activities	(96)	(143)
Net cash from financing activities	-	5,060
Net (decrease)/increase in cash	(2,547)	2,121
Cash at the beginning of the year	5,729	3,608
Cash at the end of the year	3,182	5,729

Cost reduction programme in Q1 led to £0.4M reduction in cash used in operating and investing activities

Outlook

- The Board expects modest growth from current-market sales in 2018
- Microsaic is working with a number of OEMs in small molecule detection which may convert into collaboration agreements, and then onto commercialisation during 2018 and 2019.
- Product development in bioprocessing is our key focus
- Increase R&D resources in 2018 to meet our development goals.
- To ensure we can meet future capacity, we will outsource our manufacturing during 2018.

Summary

- Clear vision & strategy with experienced management
- Targeting high growth markets in biopharma
- Good progress to date with product development and technical integration phase with one of the foremost players in the global market for scientific instrumentation
- The Board remains confident in the prospects for the business.