



# Universal Biosensors Inc. (UBI)

Sentia Wine Analyser – Early feedback from Winemakers

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## Recommendation Buy

<b>Risk Rating</b>	<b>High</b>
<b>24-mth Target Price (AUD)</b>	<b>\$1.42</b>
Share Price (AUD)	\$0.715
12-mth Price Range	\$0.19 - \$0.845
Forecast 24-mth Capital Growth	99%
Forecast 24-mth Dividend Yield	0.0%
<b>24-mth Total Shareholder Return</b>	<b>99%</b>

Market cap (\$m)	127.0
Net debt (net cash) (\$m)(Mar 21)	(22.1)
Enterprise Value (\$m)	104.9
Gearing (Net Debt/ Equity)	N/a – Net Cash
Shares on Issue (m)	177.6
Options / Perf rights on Issue (m)	9.0
Sector	Healthcare
Average Daily Value Traded (\$)	\$141,000
ASX 300 Weight	n/a

### Financial Forecasts

Years ending Dec \$m	19(A)	20(A)	21(e)	22(e)	23(e)
Sales revenue	6.9	3.2	7.4	14.1	28.2
Sales growth	-72%	-54%	132%	90%	100%
Cash operating costs	-16.6	-13.4	-14.5	-17.3	-23.3
EBITDA	-5.0	-5.9	-4.2	-1.4	6.6
NPAT (reported)	-4.8	-7.6	-6.4	-3.7	4.0
NPAT (adjusted)	-4.8	-8.3	-6.4	-3.7	4.0
EPS (adjusted)	-2.7	-4.7	-3.4	-2.0	2.2
EPS growth	8%	71%	-27%	nm	large
DPS	0.0	0.0	0.0	0.0	0.0
OCF / share	18.7	-4.7	-3.2	-0.5	4.6

### Valuation Metrics

P/E	-26.2x	-15.3x	-21.0x	-36.0x	33.2x
P / OCF	3.8x	-15.3x	-22.1x	-157.3x	15.5x
EV / Sales	13.7x	32.6x	14.9x	8.0x	3.7x
EV / Ebitda	-18.9x	-17.6x	-26.0x	-81.4x	16.1x
Cash from Operations	33.2	-8.3	-6.0	-0.8	8.6
Net Cash (Net Debt)	37.2	23.9	16.9	14.5	21.5
Enterprise Value	94.3	104.4	110.1	112.5	105.5

## UBI SHARE PRICE PERFORMANCE



## Summary

Universal Biosensors Inc. (UBI) is a specialist biosensors company focussed on the development, manufacture and commercialisation of a range of point-of-use devices for measuring different analytes across different industries. UBI's strategy is to build a multi-product stable of revenue generating biosensors in large markets which can be used on UBI's hand-held platform technology including Human health (coagulation, oncology), Animal health (diabetes), Food & Beverages (wine) and Environmental.

Historically UBI has developed products for industry majors on a contract R&D basis plus milestones (e.g. novel blood glucose tests for LifeScan / J&J – 10bn tests sold; Coagulation tests for Siemens – 9m tests sold). With a new CEO, UBI now plans to control its own destiny with exciting new products and break-through technology from new partners.

### What has changed?

- In March UBI launched the Sentia Wine Analyser, its first new product in 7 years. This offers winemakers significant time and cost savings for “at-barrel testing” for key chemicals in the wine maturation process compared to traditional external lab testing. We estimate an \$80-100m annual sales opportunity for UBI assuming 20% global market penetration.
- UBI has announced a further 3 distribution deals covering Switzerland, Spain & Portugal, and France & Italy providing potential access to 26,000 wineries in Europe. It now has 10 deals covering most major wine producing countries including A&NZ, USA and Europe.
- A further 19 distributors in Europe are currently trialling Sentia. Further announcements expected.
- We held discussions with 3 separate winemakers who are early adopters of Sentia. Feedback was universally positive with no major negatives (summarised in this report). The addition of 4 further tests would make Sentia even more compelling.
- All 3 winemakers thought our assumption of 20% penetration into the 90-100,000 wineries in the world was realistic (25-30%, ~30%, 50% plus was possible).

### Recommendation & Opinion

We reiterate our BUY (High risk) recommendation. Our valuation range is \$1.00 to \$2.23 and our 24-month price target is \$1.42 per CDI.

We rate an investment in UBI as High Risk as most of UBI's products are in the early launch, or relaunch phase and a wide range of outcomes are possible. However, UBI's technical success with LifeScan / J&J and Siemens provides confidence that UBI will deliver successful products to its targeted global market segments.

## 1. Sequoia Forecasts (unchanged)

We have prepared detailed forecasts for 10 years based on our discussions with management, and some distributors. We show below a summary of our forecasts for the next 5 years. We caution investors that most of UBI's products are in launch, or relaunch mode, so there is a high possibility the actual results achieved could be significantly higher, or lower than our assumptions and forecasts. We will fine tune our forecasts as better information and quarterly results become available.

UBI - Sequoia forecasts summary	Reference	2020A	2021e	2022e	2023e	2024e	2025e
<b>1. SENTIA WINE ANALYSER</b>							
Sales - Test strips		0.0	0.5	4.6	11.9	20.1	30.1
Sales - Devices		0.0	0.9	1.3	1.8	2.3	3.1
<b>Sales - Total product</b>		<b>0.0</b>	<b>1.4</b>	<b>5.9</b>	<b>13.8</b>	<b>22.4</b>	<b>33.2</b>
Sales growth				317%	133%	63%	48%
<b>Gross profit</b>			<b>0.8</b>	<b>3.4</b>	<b>8.1</b>	<b>13.2</b>	<b>19.6</b>
Gross profit margin %			54%	58%	59%	59%	59%
<b>2. HUMAN COAGULATION ANALYSER (PT-INR test)</b>							
Sales - Xprecia Stride (old product sold by Siemens)(strips only)		2.6	4.0	2.0	0.0		
Sales - Xprecia Stride (old product sold by UBI)(strips only)		0.0	0.0	4.0	8.0	0.0	
Sales - New product and brand expected 2023 (strips + devices)		0.0	0.0	0.0	1.0	10.0	12.0
<b>Sales - Total product</b>		<b>2.6</b>	<b>4.0</b>	<b>6.0</b>	<b>9.0</b>	<b>10.0</b>	<b>12.0</b>
Sales growth		-48%	56%	50%	50%	11%	20%
<b>Gross profit</b>		<b>0.9</b>	<b>2.4</b>	<b>3.6</b>	<b>5.4</b>	<b>6.0</b>	<b>7.2</b>
Gross profit margin %		33%	60%	60%	60%	60%	60%
<b>3. ANIMAL BLOOD GLUCOSE MONITORING (Diabetes in animals)</b>							
Sales - Test strips					2.4	5.4	9.0
Sales - Devices					0.6	1.2	2.1
<b>Sales - Total product</b>					<b>3.0</b>	<b>6.6</b>	<b>11.1</b>
Sales growth					n/a	118%	68%
<b>Gross profit</b>					<b>1.8</b>	<b>3.8</b>	<b>6.5</b>
Gross profit margin %					58%	58%	58%
<b>4. HRL Canada (Calibration services)</b>							
<b>Sales - Services revenue</b>		<b>0.6</b>	<b>2.0</b>	<b>2.2</b>	<b>2.4</b>	<b>2.7</b>	<b>2.9</b>
Sales growth		-69%	214%	10%	10%	10%	10%
<b>Gross profit</b>		<b>-0.2</b>	<b>0.6</b>	<b>0.8</b>	<b>0.9</b>	<b>1.1</b>	<b>1.3</b>
Gross profit margin %		-36%	30%	35%	39%	42%	46%
<b>UBI TOTAL</b>							
Product revenue (strips & devices)		2.6	5.4	11.9	25.8	39.0	56.3
Services revenue (HRL)		0.6	2.0	2.2	2.4	2.7	2.9
<b>Total revenue</b>		<b>3.2</b>	<b>7.4</b>	<b>14.1</b>	<b>28.2</b>	<b>41.6</b>	<b>59.2</b>
Sales growth		-54%	132%	90%	100%	48%	42%
<b>Cost of product</b>		<b>-2.6</b>	<b>-3.7</b>	<b>-6.3</b>	<b>-12.0</b>	<b>-17.5</b>	<b>-24.6</b>
<b>Gross profit</b>		<b>0.6</b>	<b>3.8</b>	<b>7.8</b>	<b>16.2</b>	<b>24.2</b>	<b>34.6</b>
Gross profit margin %		19%	51%	55%	57%	58%	58%

Source: Sequoia forecasts

## 2. What has changed?

**UBI appoints 3 more distributors** - for its Sentia Wine Analyser providing UBI with access to more than 26,000 wineries across Europe:

- Switzerland – First sales and non-exclusive 3-year distribution agreement with XC Oenologie Sarl.
- Spain & Portugal – First sales made to AZ3 Oeno SL Enologia Viva. Non-exclusive deal to facilitate a more extensive evaluation before signing more definitive agreements.
- France & Italy (& potentially Europe) – Vinventions SA to initially market and trial Sentia in France and Italy. Unofficial, non-exclusive agreement to facilitate a more extensive evaluation before signing more definitive agreements.
- There are currently 19 distributors trialling Sentia devices across Europe. UBI is confident that additional distribution agreements with some of these and sales will be made in Europe over the next few months.

**Trading update** – UBI said Sentia sales for the first 3 months since the March launch had been excellent considering the Covid 19 pandemic, lockdowns and associated difficulties. The business is forecasting \$1.0m of sales before the end of September (~6 months).

- Our comment: We are forecasting \$1.4m of sales for CY21 (~9 months since launch) rising to \$5.9m in CY22 and \$13.8m in CY23. Sentia is brand new product, so forecasting the speed of the ramp up is difficult and a wide range of outcomes is possible. Our CY21 forecast looks achievable based on UBI's latest comments above, and the number of distribution agreements announced to date gives us some more confidence in our CY22 and CY23 forecasts.

**Feedback from 3 winemakers** - Over the last two weeks we have held discussions with 3 winemakers who are all early users of the Sentia Wine Analyser launched in March.

- Rohan Scott – from Scott Wines and Buller Wines (Rutherglen, Vic).
- Chris Carpenter – from Lark Hill Winery (near Canberra).
- Matt Campbell – from Crittenden Estate Wines (Mornington Peninsula, Vic).

We summarise those discussions below.

## 3. Discussion with Rohan Scott

*Director and Winemaker at Scott Wines, and winemaker at Buller Wines, Rutherglen Vic & Swan Hill Vic*

- Rohan is in charge of wine held in 99 stainless steel tanks, and approximately 20 oak vats. Production is from ~ 2,000 tonnes grape crush pa.
- Wines are generally held for 6 months to 18 months for the maturation process (whites 6-9 months, reds 9-12 months, big reds 18 months).
- SO2 testing is a year-round process. All wine lots are tested approximately monthly, with different wine lots being tested every day.
- Rohan tests all lots prior to bottling. This is probably the most important analysis to get correct.
- Currently Rohan or his assistant winemaker test about 8-10 wine lots per day. With Sentia, they are able to test ~18 lots per day. i.e. They can do twice the testing than before, or do the same testing in less than half the time. This frees up time for the winemaker to do other things.

### *The traditional aspiration or wet-chemistry testing method.*

- 20 ml samples are taken from each wine lot. A bunsen burner and an aspirator are used to heat the sample. Ortho-phosphoric acid is added manually to release the bound SO<sub>2</sub>. The aspirator creates a bubbling process and a colour change. Hydrogen peroxide is in the flask in which the SO<sub>2</sub> is sparged (bubbled) into. The process requires a trained operator and is very prone to air leaks and error. The result is recorded manually in a pad. Subsequently re-input into the Wine inventory tracking software system used ("Eziwine").
- Rohan saw the Sentia device on social media and followed up with inquiries. Buller Wines purchased 2 Sentia reader devices in March.
- The advantages of Sentia were (a) Significant time savings (b) ease of use, including by untrained cellar-hands, and (c) consistent / repeatable results.
- When Rohan first received the device, it was bench-tested against the aspiration method. Results were consistent.
- Buller Wines purchased Sentia through the exclusive Australian distributor, Grapeworks Pty Ltd. They also sell tanks, wine barrel racks, reagents. Well known service provider to the wine industry.
- Rohan thought the Sentia purchase was more than justified on the basis of just the Free SO<sub>2</sub> testing, and time saving involved.
- Costs – At ~\$2,000 for the device and \$4.00 for each test Rohan thought it was good value for the benefits. Set up costs for the traditional aspiration method are probably ~\$1,500 for dual aspirators, glassware, burner etc. And this requires reagents which have to stored and use-by dates managed.

### *Future Sentia Tests*

We also discussed the potential for the other tests UBI is developing which should all be available on the existing Sentia reader device, but using different test strips. Rohan is not involved in the development process, but kindly gave us his initial thoughts which we distilled into this table, including order of importance.

UBI - Sentia - planned future tests		Est. Tests per Wine lot	White	Red
Test	Estimated usage			
Free SO <sub>2</sub>	Monthly over the life of the wine pre-bottling	9	✓	✓
Malic acid	For red wines only. Important. Other methods chromatography or photospectrometry require skill	3		✓
Glucose/ Fructose	1-3 times per lot during fermentation	2	✓	✓
Total acid	White & sparkling wines use more	2	✓	✓
Acetic acid	Once, unless there was an issue	1	✓	✓

Source: Sequoia discussions with winemaker

He thought that Free SO<sub>2</sub> was the most important, high volume laborious test done by wine-makers. Malic acid was second-most important because the existing testing method is also difficult and requires skill to get a correct result.

Rohan said that the use case for Sentia was strong just based on free SO<sub>2</sub>, but with the other tests also to become available, he thought every winery would want Sentia.

We asked Rohan's opinion on our assumption that Sentia could eventually achieve a ~20% penetration into the world's 90,000 to 100,000 estimated wineries. Rohan thought our figure could / should be >50%.

#### 4. Conference Call 8/6/21 & follow up call with Chris Carpenter

UBI also held a conference call for fund managers and analysts on Tuesday, featuring Rohan Scott from Scott Wines and Buller Wines (as before) and Chris Carpenter of Lark Hill Wines, near Canberra. We followed up later with further questions with Chris.

Chris's comments were pretty consistent with what we had already learned from our discussions the week before with Rohan. Other points were:

- Lark Hill processes around 100 tonnes pa. Wine is held 3-12 months in approximately 90 wooden barrels and 24 stainless steel tanks (1,000 litres to 10,000 litres). Lark produces red, white, rose and sparkling wines. No fortified.
- Lark Hill have purchased 1 Sentia device. Sentia works on all their wines, whether stored in oak barrels, or in stainless steel tanks.
- Speed - The main motivation for buying Sentia was the speed of results versus the manual aspiration testing method.
- Frequency - With Sentia, Lark Hill was also doing more tests more frequently. The ability to quickly and easily test every barrel rather than random samples, or blended samples that he previously did with the traditional method, was a major plus.
- A simple Riesling might require just 2-3 tests post-ferment. However a more complex Chardonnay or Syrah might require testing once per month. Some wines would be checked ~ 20 times. Currently he is testing barrels once per fortnight until end-September. Overall, Chris estimates he would do around 20 free SO2 tests per month, and over 200 per annum.
- Convenience / portability / no mix-ups – Chris uses Sentia to test a tiny quantity at the barrel, which might be 5 levels up in a rack. The traditional aspiration method involves climbing over all the barrels to retrieve a sample, and taking larger 20ml samples away to the test bench, which also increased the risk of mixing up samples and results.
- Less wastage – Frequent testing with Sentia would also reduce the risk of a barrel being overlooked and potentially having to be discarded or blended into a lower quality wine.
- Lark Hill is an organic and bio-dynamic winery. Sentia was incredibly empowering to allow Lark Hill to fine tune the wine-making process to keep sulfur concentrations below 100 parts per million, to allow the wine to be certified as organic.
- Malic acid test was seen as very important. The existing testing methods are slow and reagents are moderately expensive (\$300-400 for a pack of 100) have a shelf life (< 12-mths). This currently requires a spectro-photometer (\$2-3k) to measure the wavelength of light through the sample. It is a tricky test to get right, and prone to error. It takes 25 minutes to perform, plus the time to gather the samples. Samples cannot be grouped – must be done one at a time. Chris would check (i.e. test) his red wines continuously through autumn and into winter (suggests testing ~12 times).
- Lark Hill is also working with UBI on the development of the glucose and fructose (G&F) combined test. This is also currently a very time-consuming procedure.
- If Sentia provides the ability to do 3-4 metrics on the one device, “the device becomes the Lab”.



- Chris said he can't believe that in 2021, this (Sentia) is the first product of its type in the market. There is nothing else like it.
- We asked Chris's opinion on our assumption that Sentia could eventually achieve a ~20% penetration into the world's 90,000 to 100,000 estimated wineries. Chris thought that in his local Canberra region Sentia should achieve a much higher penetration. Most winemakers have the facilities to test for free SO<sub>2</sub>, but he thinks less than half would have the facilities or equipment to do the other tests. There is only one lab in his region which is part of another winery, with tests as much as \$15/sample, and results reported around 24 hours after samples are received. Otherwise samples must be sent to South Australia or Victoria, with costs in freight to consider, as well as turnaround times as long as a week.
- He thought Sentia could achieve > 30% penetration in Australia, and much higher in the Canberra region.
- For global, Chris thought old world wineries in countries like France or Germany would be lower than Australia, as small winemakers might continue to use the local co-operative lab. But new world wine-makers he thought would embrace the device for all its benefits. He also thought Australian winemakers would be quick to adopt new methods like Sentia.
- Large wineries – Chris could see a major benefit for large wineries, even if they had on-premise labs and specialised lab staff. Un-trained cellar hands could test samples in the barrel room and the winemaker could make immediate adjustments to the wine, rather than waiting for a busy lab to return results. Timing can be important, and even 1 day can make a difference regarding moving wine from one tank to the next and accepting more grapes for processing from the harvest.
- Neither Chris nor Rohan had any negative issues or problems to date.
- Both believed that awareness of Sentia among winemakers was currently low. There are no wine industry trade shows currently because of Covid 19.

#### Other

UBI closed out the presentation saying the development of the additional tests was on track. The combined glucose / fructose test should be available by calendar year-end, and the two (three?) acid tests in 1H22.

Because of the lack of trade shows, UBI was using social media to promote awareness and word of mouth. UBI will definitely attend international wine industry tradeshow as soon as they start up again.

UBI is also looking to hire another 2 sales people (making 4) with wine industry experience, based on the solid progress to date and levels of early interest. UBI's sales & marketing manager Stephen Todhunter has >20 years' experience in the wine and spirits industry.

From what we have heard to date, including our independent checks discussed here, we think UBI's Sentia product will be a disruptive, and innovative new product for the global wine industry. It is still early days, but we think UBI has created a winning product with significant global potential.

## 5. Crittenden Wines (9/6 & 10/6/21)

We spoke to Matt Campbell, Assistant Winemaker at Crittenden Wines based at Dromana, on Victoria's Mornington Peninsula.

- Matt has been involved with the development of Sentia prototype for about a year, and now has the final production model (which didn't change much from the prototype – just fine tuning he thought).
- Crittenden processes ~100 tonnes pa which Matt described as medium size for Mornington Peninsula wineries.
- Crittenden produces white, red and rose wines. No fortified. No sparkling wines. Wines are held for 10-12 months stored in approximately 60 batches from different growing areas in approximately 400-500 barrels grouped by batch.
- Matt does ~20 free SO<sub>2</sub> tests per month throughout the year, so around 240 free SO<sub>2</sub> tests pa on the 60 batches. Some days could be 5-6 tests, others 20 tests in a day which is very time consuming using the traditional aspirator method which takes about 12 minutes.
- Matt now does most of these tests using the Sentia device, but still does occasional manual tests using the aspirator method to keep up his skills.
- He said Sentia was really practical, easy to use and super convenient. He was confident the Sentia readings were reliable. The advantages were: Speed & convenience; No reagents required; and the ability to go anywhere in a barrel room to do at barrel testing.
- Future tests – Matt thought Malic acid and Glucose & Fructose tests would see real value-add to winemakers from the device. Crittenden does not have the facilities to do these other tests so currently sends samples out to an external lab. He thought that potentially Sentia could do ~80% of his tests.
- Malic tests (Malolactic fermentation "MLF" or secondary fermentation) are mainly done from autumn through spring. Only once MLF (if desired) is complete, should wines be SO<sub>2</sub>'d as adding sulphur will greatly inhibit MLF. Ideally checked just once as a batch. Pre-bottle - not so much unless another unknown wine is included in the blend.
- Crittenden also does pre-export analysis and testing at the Lab which wouldn't change.
- We asked Matt's opinion on our assumption that Sentia could eventually achieve a ~20% penetration into the world's 90,000 to 100,000 estimated wineries. Matt thought that every winery would want one, but small winemakers in France / Europe would probably stick with their local external lab out of habit. It also depended on costs per test (~\$30 per test externally). So he thought 50% might be too optimistic, and our figure could / should be 25-30%.
- Matt thought there might be a sweet spot for Sentia for wineries processing 20 tonnes to 1,000 tonnes pa. Larger wineries would have well equipped in-house labs and lab staff. Although he thought the convenience of being able to do testing in barrel room would be of interest to the large wineries too.

## 6. UBI - Risks Factors (from our 19/5/21 Initiation Report)

1. **Dual listed structure / CDIs / US centric reporting** – Because UBI is listed in Australia, and incorporated in Delaware USA, it has to comply with US SEC regulations. It prepares its accounts in US reporting format (e.g. SEC Form 10-k's for quarterly and annual results). Fortunately UBI reports in Australian dollars, but we find the US reporting format to be considerably different and difficult for Australian investors. For example, directors shareholdings and remuneration are not included in the Annual Report, but are provided in the AGM notice several months' later. Balance sheet and P&L have no references to notes to the accounts making navigation time consuming. We presume this structure was chosen originally with global ambitions in mind. We understand it is unlikely to change as there are A\$28m of Australian tax losses & \$0.9m CAD tax losses to protect and possibly recoup.
2. **New product launches / High risk / High reward** - UBI is effectively at the starting blocks again, with LifeScan buying out its interests in the very successful blood glucose monitoring business, and Siemens relinquishing the blood coagulation business having failed to achieve satisfactory market share against Roche. UBI now has control of that coagulation business, but needs to develop an improved version of Xprecia Stride by 2023 to take on Roche successfully. UBI's other major opportunities are all start-ups – Wine Analyser, Animal blood glucose monitoring, and the cancer Tn test. There is a risk that UBI will not be able to create superior products. There is a risk that UBI will not be able to compete successfully against much larger, better funded, more established incumbents like Roche in coagulation, and Zoetis (Pfizer spin-out) in animal health. The portable wine analyser is a new product creating a brand new category to compete against bricks & mortar laboratories. There is a risk that the market may not accept UBI's innovative new products or their pricing.
3. **HRL Canada has a narrow customer base** – UBI's 4<sup>th</sup> product area, HRL performs mandatory calibration tests for the Siemens (now UBI controlled) coagulation business, Bayer, Abbott and Ionis. It was founded in 2016 and was loss-making when acquired by UBI in 2016 but the addition of the Siemens / UBI work put the business into profit in 2020 and it has since won \$1.3m of initial work for Bayer. UBI has a strategy to grow this business which is complementary to UBI's other products / businesses, and to broaden its customer base. It is not yet a firmly established business in our opinion.
4. **Forecasting risk** – Obviously with 3 of UBI's 4 businesses/ products being new, there is a high risk of the actual revenue and profit results differing materially from our forecasts. We do not have much of a comparable history to guide us. Having multiple products coming on stream aimed at separate market segments does provide some diversification benefit and should in theory reduce risk going forward.
5. **New product risk** is partly mitigated by having 17 years' experience in electrochemical biosensors, and having \$24.7m of net cash (including restricted cash) at end-March to see it through this new product launch and development phase.
6. **Selling & Distribution is new to UBI** – Excluding the small HRL calibration services business in Canada, UBI has historically serviced only two customers – LifeScan (Johnson & Johnson) and Siemens Healthcare Diagnostics. UBI is now required to service the Siemens client base (120 hospitals and distributors, mainly in Europe) and find new distribution partners and clients for all of its other products (i.e. Wine analyser, PT-INR blood coagulation product, Animal blood glucose test). UBI has already signed 7 new distribution deals for the Wine Analyser since early December 2020 and new CEO John Sharman has 10 years' experience managing large, medium and small distributors locally and overseas when he was CEO of Medical Developments (MVP). So this should not be a major problem.



7. **Financing risk** – We expect UBI to become Ebitda and NPAT profitable in CY23. We also expect UBI to become cash flow positive in CY23.
8. **Key person risk** – UBI is a small company with just 60 staff (46 staff in Australia and 14 overseas). Accordingly, there is significant key person risk with such a small organisation. E.g. the CEO, CFO and product and technology heads.

## 7. Possible Share Price Catalysts

We identify the following possible share price catalysts for UBI:

1. **Progress with Sentia launch into the global wine-making industry** – UBI has announced distribution partners for Australia, Canada, USA, NZ and South Africa. Further distribution deals are expected to be announced over the balance of 2021. Beyond these initial deals, we will look for evidence of on-going traction such as further device sales and accelerating consumables re-orders demonstrating traction with customers. Customer testimonials would be well received.
2. **New products for Sentia platform** – So far, UBI has only launched the “Free Sulphur Dioxide” test. 5 further tests are under development and expected to be launched over the next 18 months. These new tests will use different consumable test strips, but the same reading device. So the value to the winemaker should increase as more tests become available.
3. **New coag distributors** - Progress with expanding the distribution of the Xprecia Stride coagulation product, beyond Siemens’ current customer and distribution base.
4. **Achieving other product development milestones** – Animal blood glucose monitoring; Tn cancer biosensor; Other new products we don’t know about yet.
5. **Possible acquisitions** – With net cash of \$22m currently, UBI could consider further complementary acquisitions. In addition, UBI is looking to partner with other companies with technology or IP which could help accelerate UBI’s range of biosensor products and applications.

## Appendix 1 - Sentia – Wine testing platform (device + test strip consumables)



### Product Description

Sentia is a hand held, portable testing device which UBI thinks will change the nature of laboratory testing in the wine making industry. The Sentia device, with its first test strip application, was released in March 2021.

Sentia measures the concentration of Free Sulphur Dioxide (Free SO<sub>2</sub>) in post-fermentation wine. It is called free SO<sub>2</sub> because winemakers are only measuring the sulphur dioxide that has not bound with other chemicals in the wine (such as aldehydes, pigments, or sugars).

Sulphur dioxide is an additive used during the production of wine. In bottled wine, free SO<sub>2</sub> acts as a preservative but there is a balance to strike: too much free SO<sub>2</sub> can taint the consumer experience; too little could mean the wine spoils in the bottle. For this reason, measuring free SO<sub>2</sub> is important to winemakers.

Further tests for use are currently under development by UBI and are expected to be released in the next 18 months. These will use the same reader device, but require different strips (consumables):

1. Free SO<sub>2</sub> (sulphur dioxide – launched March 2021)
2. Glucose & Fructose – expected launch Q4 2021
3. Malic acid - expected launch 1H2022 (was Q4 2021)
4. Total acid - expected launch Q2 2022
5. Acetic acid - expected launch Q3 2022

Measuring range: 3 to 50 mg per litre for free SO<sub>2</sub> (which UBI says is within 2% of the \$75k leading competitor product (Thermo Gallery which is the current industry gold standard).

Retail pricing for the reader device is approximately A\$2,000 for domestic / US\$2,000 (A\$2,600) for USA and international and A\$3.00 to \$4.00 for each test strip. Different tests are expected to have varied pricing.

### Advantages

- Time – on the spot results within 1 minute (Vs competitors at 10-20 mins, and external lab testing 2+ days).
- Accuracy & repeatability.
- Portability – genuine at the wine barrel testing.
- Efficiency / costs – improved processing efficiency and associated labour cost savings, and no internal or external lab costs.
- Quality – in-built quality control checks for each test.
- Convenience - No messy reagents. Automatically calibrated. Data automatically stored for upload.

*Distribution*

Ref	UBI - Sentia wine analyser - Distributor Distributor / Region	Date Announced	Website	Contact	Est. Staff
1	<b>Australia (exclusive)</b> Grapeworks Pty Ltd Dingley, Melbourne	07-12-20	<a href="http://www.grapeworks.com.au">www.grapeworks.com.au</a>	Malcolm Wilson (MD)	
2	<b>USA - East Coast</b> Enartis Inc Windsor, Sonoma County, California & Trecate Italy	27-01-21	<a href="http://www.enartis.com">www.enartis.com</a>	José Alberto Santo (CEO)	92
3	<b>USA - West Coast</b> Wine & Beer Supply Ashland, Virginia	15-04-21	<a href="http://www.wineandbeersupply.co">www.wineandbeersupply.co</a>	Dave Robertson CEO	10
4	<b>Canada</b> Vines to Vintages Pelham, Ontario	01-04-21	<a href="http://www.vinestovintages.ca">www.vinestovintages.ca</a>	Natalie Spytrowsky (President)	5
5	<b>Chile</b> Singularity SP	14-04-21			
6	<b>South Africa</b> Vicard SA Cape Town	26-04-21	<a href="http://www.groupe-vicard.com">www.groupe-vicard.com</a>	Michael Fernandes	
7	<b>New Zealand (exclusive)</b> Grapeworks NZ	29-04-21	<a href="http://www.grapeworks.com.au">www.grapeworks.com.au</a>	Malcolm Wilson (MD)	
8	<b>Switzerland</b> XC Oenologie Sarl Cartigny, Geneva	07-06-21	<a href="http://www.xcoenologie.ch/">www.xcoenologie.ch/</a>	Xavier Chevallay (CEO)	4
9	<b>France &amp; Italy</b> Vinventions SA Thimister-Clermont, Belgium	07-06-21	<a href="http://www.vinventions.com">www.vinventions.com</a>	Denis Van Roey (CEO)	188
10	<b>Spain &amp; Portugal</b> Hernani, Spain	07-06-21	<a href="http://www.az3oeno.com/equipo-a">www.az3oeno.com/equipo-a</a>	Inaki Kamio (Manager)	18

Source: UBI announcements; All deals are non-exclusive except Australia &amp; NZ

Staff numbers from LinkedIn (may be under-stated, as not all staff members are likely to be on LinkedIn)

NB. Additional agreements to be announced for rest of world during CY2021 per UBI.

*Total Addressable Market*

If we assume that UBI can achieve a 20% market share, the wine analyser market could become a ~\$100m per annum opportunity for UBI (see below). The hardware device and the first test (for free sulphur dioxide) have been launched, with 5 further tests to be developed and launched over the next 18 months.

UBI - Oenology - Revenue Scenarios to UBI	A & NZ	Retail Value (A\$m) USA	RoW	Worldwide	Wholesale Value
Assumed 10% market share	3.8	16.7	64.1	84.6	50.8
<b>Assumed 20% market share</b>	<b>7.6</b>	<b>33.5</b>	<b>128.1</b>	<b>169.3</b>	<b>101.6</b>
Assumed 25% market share	9.6	41.8	160.2	211.6	126.9
Assumed 30% market share	11.5	50.2	192.2	253.9	152.3
Assumed 40% market share	15.3	66.9	256.3	338.5	203.1
Assumed 50% market share	19.1	83.7	320.3	423.1	253.9
<b>100% market share (UBI estimated value)</b>	<b>38.2</b>	<b>167.4</b>	<b>640.7</b>	<b>846.3</b>	<b>507.8</b>

Source: Sequoia calculations using UBI retail market value estimates

*Our Forecasts*

Based on the enthusiasm of the distributors announced so far, and the speed and size of their initial orders, we expect a fairly rapid take-up of this innovative new product by wine-makers, particularly the small to medium firms that probably don't have an in-house testing lab.

We forecast sales of \$13.8m in FY23 (year 3), \$33.2m in FY25 (year 5) and \$88m in FY31 (for a 20% market share by year 10, not shown). We expect a strong gross profit margin in the 50-60% range.

## Appendix 2: Free SO<sub>2</sub> test Background

(Source: [TerlatoWines.com](https://www.terlatowines.com))

Sulfur Dioxide (SO<sub>2</sub>) is the most common chemical compound used in winemaking. Its preservative and anti-bacterial qualities were discovered thousands of years ago, and because it is non-toxic it has been used in foods and wine since antiquity. Sulfur is naturally present on the grape skins, and though it is typically not enough to ensure against spoilage for winemaking purposes, it means that no wine is entirely sulfite-free.

SO<sub>2</sub> is added periodically throughout the winemaking process and plays a critical role in quality winemaking. Sulfur serves two main purposes.

- It prevents the wine from reacting with oxygen which can cause browning and off-odours (oxidation),
- It inhibits the growth of bacteria and undesirable wild yeasts in the grape juice and wine.

The grapes are not rinsed before crushing because some of the grapes have already leaked juice and this would potentially dilute this high quality free-run juice. The unwashed skins have bacteria and wild yeast on them that can unpredictably influence fermentation and some winemakers therefore choose to use sulfur dioxide before they are loaded into the crusher / destemmer.

Sulfur may be added again at the time of racking or anytime the wine could potentially be exposed to oxygen. Because a small percentage of the population is potentially allergic to sulphur dioxide, winemakers are required by law to keep the levels of SO<sub>2</sub> in their wines below 200 parts per million for dry wines (many wines have far less), and only a little higher for dessert wines. The laws have become more stringent with regards to admissible sulfur content in all food products, however, regardless of the international regulations, winemakers avoid the addition of sulfur because of its unpleasantly pungent smell and impact on the natural development of wine.

Without a complete understanding of the amount typically employed in winemaking and the reasons for its use, Americans have reacted strongly to sulfur content in wines as they have to any substances or foods that could potentially cause allergic reactions. For this reason "Contains Sulfites" is now required language on all wine labels sold in the US. Because all wines contain naturally occurring sulfur compounds, no other country, aside from Australia, has this requirement, and many, in fact, find this regulation laughable.

Source: <https://www.terlatowines.com/knowledge/sulfur-dioxide-and-its-role-winemaking>

## Appendix 3: Measurement of Sulfur dioxide SO<sub>2</sub> in Wine

This document gives a brief summary of the procedures and equipment requirements for some commonly used techniques for determination of the concentration of sulfur dioxide in wines. There are two main techniques that are used to measure the concentration of sulfur dioxide in wine. Automated systems are available and offer considerable benefits to laboratories that routinely analyse relative large numbers of samples.

### *Method 1: ASPIRATION/TITRATION (RANKINE AND POCOCK)*

Description: Sulfur dioxide is sparged from an acidified wine sample in an air stream and trapped in a solution of hydrogen peroxide which oxidises the sulfur dioxide to sulfuric acid. The sulfuric acid formed is then titrated with standardised sodium hydroxide, and the amount used is proportional to the amount of sulfur dioxide in the wine. Total SO<sub>2</sub> is determined by heating an acidified sample during the aspiration step (Rankine and Pocock 1970).

- Equipment: 100 mL round bottom flasks, 2-necked pear-shaped flasks, condensers, retort stands, bunsen burners, flasks, burette.
- Reagents: Phosphoric acid solution, standardised sodium hydroxide solution.
- Services: Water supply, sink, natural gas supply, compressed air.
- Space required: Bench space

### *Method 2: REACTION / TITRATION (RIPPER)*

Description:

The acidified wine sample is titrated with iodine in the presence of starch indicator so that when excess iodine appears in solution it turns blue as the end point. Total SO<sub>2</sub> is determined by adjusting the sample pH to alkaline conditions and then incubating in the dark to release the bound fraction as free, which can then be determined. It should be noted that this technique is not commonly used in Australia and, in particular, many consider it to be of limited use in red wines.

- Equipment: Flasks, burette
- Reagents: Sulfuric acid solution, Standardised iodine solution
- Services: Wash-up area
- Space required: Bench space

Source: [https://www.awri.com.au/industry\\_support/winemaking\\_resources/laboratory\\_methods/chemical/so2/](https://www.awri.com.au/industry_support/winemaking_resources/laboratory_methods/chemical/so2/)



## Appendix 4: Malic Testing

Malolactic fermentation (or secondary fermentation, MLF, ML or “Malo” for short), is the process in which malic acid in wine is converted to lactic acid. Mostly all red wines and various white wines go through ML after the initial fermentation is complete. Contrary to regular or primary fermentation (where yeast converts sugar into alcohol), ML is caused by the bacteria *oenococcus oeni*. While ML occurs naturally, wines are often inoculated with the bacteria culture to kick-start the process. Malolactic fermentation softens the taste and texture of the wine, adds complexity and character, and stabilizes wines prior to bottling.

Malic acid is the tart acid in grapes also found in green apples. Lactic acid, on the other hand, is the more creamy acid found in milk, cheese, and yogurt. Chardonnay is a classic example where the fuller mouth-feel and creamy texture is the direct result of malolactic fermentation and barrel aging. The buttery flavour in many chardonnays comes from a compound called diacetyl, which is derived from the ML process.

For crisp whites that do not benefit from ML such as Riesling and Gewürztraminer, ML is prevented through chilling, filtering, and/or adding of fining agents or enzymes. Even some chardonnay producers prefer a crisp style, skipping the barrels and fermenting entirely in temperature controlled tanks to keep the wine light and fruity. Occasionally, the two styles are combined and tank wine is blended with wine that has gone through ML in barrel. This results in a wine with both crispness and nuance of butter and toasty oak.

Red wines - prior to malolactic fermentation, tend to be harsh and astringent on the palate. After the malic acid is converted to lactic, the wine becomes noticeably softer and more approachable. Wines are perceivably heavier and rounder on the palate and will continue to gain weight through the aging process.

The status of the MLF in a wine must be monitored quite attentively. To check if ML is working, we literally put our ear to an open barrel and listen for CO2 bubbles being released. The crackling sound lets you know that the wine is alive and well. Once the bubbles have ceased, wines are checked in the lab for acid levels. When ML is finished and all of the malic acid has been consumed, SO2 (sulfur) can now be added to help preserve the wine and minimize microbial activity.

Source: <https://www.winc.com/blog/malolactic-fermentation-simplified>

## Appendix 5 – Buller Wines, Lark Hill & Crittenden Estate Wines

### *Buller Wines, Rutherglen Vic*



Source: Tripadvisor and [www.bullerwines.com.au/wines](http://www.bullerwines.com.au/wines)

### *Lark Hill Wines, Bungendore NSW 2621 (near Canberra)*



Source: [www.larkhill.wine](http://www.larkhill.wine)

## Crittenden Estate

📍 [25 Harrisons Road, Dromana, Victoria, 3936](https://www.visitvictoria.com/regions/Mornington-Peninsula/Food-and-wine/Wineries/Crittenden-Estate)



Source: [www.crittendenwines.com.au](http://www.crittendenwines.com.au)

Source: [www.visitvictoria.com/regions/Mornington-Peninsula/Food-and-wine/Wineries/Crittenden-Estate](https://www.visitvictoria.com/regions/Mornington-Peninsula/Food-and-wine/Wineries/Crittenden-Estate)

Universal Biosensors Inc (UBI) \$ 0.715

## Profit &amp; Loss

Year end June \$m	FY19	FY20	FY21e	FY22e	FY23e
Op. Revenue	6.9	3.2	7.4	14.1	28.2
Revenue growth %	-72.2%	-53.6%	131.5%	90.2%	100.0%
Cost of Goods Sold	(3.6)	(2.6)	(3.7)	(6.3)	(12.0)
<b>Gross Profit</b>	<b>3.3</b>	<b>0.6</b>	<b>3.8</b>	<b>7.8</b>	<b>16.2</b>
Gross Profit Margin	48.2%	19.5%	50.7%	55.1%	57.3%
Other Income	4.2	4.4	2.9	2.0	2.0
Cash Operating Expenses	(13.0)	(10.8)	(10.8)	(11.0)	(11.3)
Share-based payments	0.4	(0.2)	(0.1)	(0.2)	(0.3)
<b>EBITDA</b>	<b>-5.0</b>	<b>-5.9</b>	<b>-4.2</b>	<b>-1.4</b>	<b>6.6</b>
Ebitda Margin	-72.6%	-185.2%	-57.2%	-9.8%	23.3%
Depreciation & Amort	(1.2)	(2.2)	(2.1)	(2.3)	(2.6)
<b>EBIT</b>	<b>-6.2</b>	<b>-8.2</b>	<b>-6.4</b>	<b>-3.7</b>	<b>4.0</b>
Ebit Margin	-89.4%	-254.7%	-85.7%	-26.3%	14.2%
Interest Income (Expense)	0.0	(0.2)	0.0	0.0	0.0
Share of Assoc NPAT	0.0	0.0	0.0	0.0	0.0
<b>Pre-tax profit</b>	<b>(6.2)</b>	<b>(8.3)</b>	<b>(6.4)</b>	<b>(3.7)</b>	<b>4.0</b>
Income Tax Credit (Expense)	1.3	0.0	0.0	0.0	0.0
<b>Tax Rate</b>	<b>-21.4%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
Minorities (share of loss)	0.0	0.0	0.0	0.0	0.0
Abnormals	0.0	0.7	0.0	0.0	0.0
<b>NPAT (reported)</b>	<b>-4.8</b>	<b>-7.6</b>	<b>-6.4</b>	<b>-3.7</b>	<b>4.0</b>
Adjustments (Abnormals)	0.0	-0.7	0.0	0.0	0.0
<b>NPAT (normalised)</b>	<b>-4.8</b>	<b>-8.3</b>	<b>-6.4</b>	<b>-3.7</b>	<b>4.0</b>

## Balance Sheet

Cash	37.2	28.1	21.1	18.8	25.7
Receivables	0.1	0.1	0.6	1.1	0.2
Inventories	1.1	1.9	2.0	2.7	5.4
Other	3.6	3.7	4.8	4.8	4.8
<b>Total current assets</b>	<b>42.0</b>	<b>33.7</b>	<b>28.4</b>	<b>27.4</b>	<b>36.1</b>
PP&E	4.8	8.4	9.0	10.2	11.5
Invests (Restricted cash)	0.0	0.0	0.0	0.0	0.0
Intangibles	15.9	14.3	14.3	15.1	15.9
Deferred tax assets	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0
<b>Total non-current assets</b>	<b>20.7</b>	<b>22.7</b>	<b>23.3</b>	<b>25.3</b>	<b>27.4</b>
<b>Total Assets</b>	<b>62.7</b>	<b>56.4</b>	<b>51.7</b>	<b>52.6</b>	<b>63.5</b>
Payables	-1.6	-1.6	-2.0	-3.8	-7.6
Interest bearing liabs -current	0.0	-0.5	-0.6	-0.6	-0.6
Deferred revenue - current	-2.7	-1.6	0.0	0.0	0.0
Provisions	-0.8	-0.6	-0.6	-0.6	-0.6
Other	-5.1	-4.6	-5.6	-1.4	-1.4
<b>Total Current Liabilities</b>	<b>-10.2</b>	<b>-9.0</b>	<b>-8.9</b>	<b>-6.4</b>	<b>-10.2</b>
Interest-bearing liabs (Non-cu)	0.0	-3.6	-3.6	-3.6	-3.6
Deferred revenue (non-current)	-1.4	0.0	0.0	0.0	0.0
Provisions	-2.6	-2.8	-2.8	-2.8	-2.8
Other	-3.1	-3.1	-4.0	-11.1	-14.2
<b>Total Non-current Liabilities</b>	<b>-7.1</b>	<b>-9.4</b>	<b>-10.4</b>	<b>-17.5</b>	<b>-20.6</b>
<b>Total Liabilities</b>	<b>-17.3</b>	<b>-18.4</b>	<b>-19.3</b>	<b>-23.9</b>	<b>-30.8</b>
<b>Total Shareholders' Equity</b>	<b>45.4</b>	<b>38.0</b>	<b>32.4</b>	<b>28.7</b>	<b>32.7</b>

## Interims

Year end June	1H20	2H20	1H21e	2H21e	FY21e
Sales	1.1	2.1	3.4	4.0	7.4
Sales Growth (%)	-73%	-27%	220%	88%	132%
EBITDA profit (loss)	-3.4	-2.5	-2.3	-1.9	-4.2
EBITDA Margin	-318.3%	-119.0%	-67.7%	-48.3%	-57.2%
EBIT	-4.5	-3.6	-3.3	-3.1	-6.4
Equity Share of Assocs NPAT	0.0	0.0	0.0	0.0	0.0
NPAT (Reported)	-4.5	-3.1	-3.3	-3.1	-6.4
NPAT (Adjusted)	-4.6	-3.7	-3.3	-3.1	-6.4
EPS (adjusted)(cents)	-2.6	-2.1	-1.8	-1.6	-3.4
EPS Growth	104.7%	42.7%	-31.7%	-21.8%	-27.3%
DPS (cents)	0.0	0.0	0.0	0.0	0.0

Source: Sequoia estimates

## Per share &amp; Ratio data

Year end June	FY19	FY20	FY21e	FY22e	FY23e
Shares on Issue - Wavge (f/c)	177.5	177.6	186.7	186.7	186.7
Shares on Issue - at y/end	177.6	177.6	177.6	177.6	177.6
<b>EPS - Reported (cents)</b>	<b>(2.7)</b>	<b>(4.3)</b>	<b>(3.4)</b>	<b>(2.0)</b>	<b>2.2</b>
Growth	-112.9%	57.5%	-20.9%	-41.7%	-208.5%
P/E ratio (x)	-26.2x	-16.6x	-21.0x	-36.0x	33.2x
<b>EPS (normalised)(cents)</b>	<b>(2.7)</b>	<b>(4.7)</b>	<b>(3.4)</b>	<b>(2.0)</b>	<b>2.2</b>
Growth	7.6%	71.4%	-27.3%	-41.7%	-208.5%
P/E ratio (x)	-26.2x	-15.3x	-21.0x	-36.0x	33.2x
DPS (cents)	0.0	0.0	0.0	0.0	0.0
<b>Yield</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
OCF per share (cents)	18.7	-4.7	-3.2	-0.5	4.6
Price/OCF (x)	3.8x	-15.3x	-22.1x	-157.3x	15.5x
Enterprise Value \$m	94.3	104.4	110.1	112.5	105.5
<b>EV/ Sales</b>	<b>13.7x</b>	<b>32.6x</b>	<b>14.9x</b>	<b>8.0x</b>	<b>3.7x</b>
EV/EBITDA	-18.9x	-17.6x	-26.0x	-81.4x	16.1x
EV/EBIT	-15.3x	-12.8x	-17.3x	-30.4x	26.3x
<b>Liquidity &amp; Leverage</b>					
Net Cash (Debt) \$m	37.2	23.9	16.9	14.5	21.5
Net Debt / Equity %	n/a	n/a	n/a	n/a	n/a
Net Debt / EBITDA	n/a	n/a	4.0x	10.5x	n/a
ROA (EBIT / T.Assets) %	-9.8%	-14.5%	-12.3%	-7.0%	6.3%
ROE (NPAT / T.Equity) %	-10.7%	-21.9%	-19.6%	-12.9%	12.3%

## Cash Flow

EBITDA	-5.0	-5.9	-4.2	-1.4	6.6
Chge in Working Capital	47.3	-3.3	-1.8	0.5	2.0
Interest Received (Paid)	0.0	-0.2	0.0	0.0	0.0
Income taxes paid	-4.4	0.0	0.0	0.0	0.0
Other	-4.7	1.1	0.0	0.0	0.0
<b>Operating cash flows</b>	<b>33.2</b>	<b>-8.3</b>	<b>-6.0</b>	<b>-0.8</b>	<b>8.6</b>
Capex	-0.1	-0.4	-0.9	-1.5	-1.6
Acquisitions	0.0	0.0	0.0	0.0	0.0
Investments	0.0	0.0	0.0	0.0	0.0
Other (Capitalised R&D)	-10.1	0.0	0.0	0.0	0.0
<b>Net investing cash flows</b>	<b>-10.3</b>	<b>-0.4</b>	<b>-0.9</b>	<b>-1.5</b>	<b>-1.6</b>
Equity raised (bought back)	0.0	0.0	0.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0
Change in Debt	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0
<b>Financing cash flow</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Change in Cash</b>	<b>23.0</b>	<b>-8.6</b>	<b>-6.9</b>	<b>-2.3</b>	<b>7.0</b>

## Revenue by Product

Blood Glucose(sold Dec18)	0.2	0.0			
Blood Coag (PT-INR tests)	4.9	2.6	4.0	6.0	9.0
<b>Sentia Wine Analyser</b>	<b>0.0</b>	<b>0.0</b>	<b>1.4</b>	<b>5.9</b>	<b>13.8</b>
Animal blood glucose	0.0	0.0	0.0	0.0	3.0
Services - HRL Canada	1.1	0.6	2.0	2.2	2.4
Services - Contract R&D / I	0.8	0.0	0.0	0.0	0.0
<b>Total Revenue</b>	<b>6.9</b>	<b>3.2</b>	<b>7.4</b>	<b>14.1</b>	<b>28.2</b>

## Directors Shareholdings

	Shares (m)	% of coy	Options (m)
Craig Coleman, Chairman (app NED 30/6/16, Cha	27.466	15.5%	0.0
Judith Smith, NED (appointed: 12/3/15)	0.300	0.2%	0.0
David Hoey, NED, overseas-based (appointed 2/3/	0.566	0.3%	0.0
<b>Senior Management:</b>			
John Sharman, CEO (commenced 8/6/20)	0.000	0.0%	7.1
Salesh Balak, CFO (commenced Nov2006)	0.267	0.2%	1.5

## Major Shareholders

	Shares (m)	% of coy
Viburnum Funds	27.250	15.3%
JM Financial Group Ltd	21.968	12.4%
Jencay Capital Pty Ltd	20.790	11.7%
Richmond Hill Capital Pty Ltd (2 mgrs ex Viburnum	12.560	7.1%
KFT Investments Pty Ltd	7.430	4.2%

Source: ASX announcements, Refinitiv

## SEQUOIA FINANCIAL GROUP (ASX: SEQ) - About Us

Sequoia Financial Group is a boutique investment house known for the quality of its advice, the strength of its relationships and depth of expertise across financial markets. The Group has also expanded into corporate advisory, equity capital markets, institutional dealing and financial planning.

Sequoia Financial Group is listed on the Australian Securities Exchange and trades under the stock code SEQ. We provide:

- Investment and superannuation products
- Wealth management and advisory services
- Corporate advisory and capital markets expertise
- Retail, wholesale and institutional trading platforms
- Market data and financial news services.

With offices in Melbourne, Sydney and Gold Coast, Sequoia Financial Group provides products and services to self-directed retail and wholesale clients and those of third-party professional service firms. Our group includes:

- **Sequoia Wealth Management** - is a holder of an Australian Financial Services License (AFSL). Our aim is to provide exceptional unbiased advice to high net wealth individuals, families and institutional investors.

Our team of diverse experts provide strategic and tailored investment advice to our clients. We specialise in advising our clients on portfolio management, SMSFs, direct shares, superannuation, structured products, option trading, personal insurance, margin lending, cash solutions and much more.

Our services are designed for individuals and family offices all seeking unbiased financial and strategic structuring advice.

- **Sequoia Direct** - offers self-directed investors a variety of investment opportunities. Most of our clients sign up to our award winning online ASX share and option trading service, where others, use our service to gain access to various investment opportunities such as IPOs & capital raising opportunities.

- **Sequoia Corporate Finance** - is a leading Australian small and mid-market corporate adviser. We apply our knowledge, extensive contacts, expertise and professionalism to deliver best-practice, objective advice in the following disciplines: Public market M&A; Private treaty M&A; Equity capital markets; Capital management and restructuring; Corporate and strategic advice.

- **InterPrac Financial Planning** - The easy choice for client-focussed and accountant-aligned financial planners to deliver superior integrated and practical solutions.

- **Sequoia Asset Management Pty Ltd** - is an investment services firm and holder of an Australian Financial Services License. Our team of experts provide general advice on portfolio management, SMSFs, direct shares, superannuation, structured products, option trading, personal insurance, margin lending and cash solutions.

- **Sequoia Superannuation Pty Ltd (SS)** - provides a complete solution to the SMSF market, designed specifically for anyone that has or wants a SMSF. SS also provides SMSF solutions to financial planners, stock brokers, mortgage brokers and accountants Australia wide.

- **Sequoia Specialist Investments Pty Ltd (SSI)** - Since 2010 SSI has been building innovative investment solutions for Australian investors. SSI works with investors, financial advisers and stockbrokers to develop and deliver investment solutions that meet the needs and objectives of their clients.

Over the years we have developed numerous investments opportunities that give investors access to both local and foreign shares and indices that offer income and capital growth potential.

SSI can also offer a variety of solutions for professional advisers where we can provide white-label solutions for groups that want to retain their own branding.

- **Bourse Data** – is one of Australia's most trusted and leading suppliers of stock market analysis software and financial market data for private and professional investors and traders.

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Morrison Securities has been providing white labelled trading solutions to Broker Dealers (Shadow Broker) since 2007. We assist broker dealer groups in providing a superior product to their clients by offering a wholesale broking solution and a comprehensive range of white-label products.

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## Recommendation Criteria

### Investment View

The Sequoia Wealth Management (SWM) Investment View is based on an absolute 1-year total return equal to capital appreciation plus yield.

Buy	Accumulate	Hold	Reduce	Sell
>20%	10% – 20%	0% – 10%	0% to -10%	>-10%

A Speculative recommendation is when a company has limited experience from which to derive a fundamental investment view.

### Risk Rating

SWM has a four tier Risk Rating System consisting of: Very High, High, Medium and Low. The Risk Rating is a subjective rating based on: Management Track Record, Forecasting Risk, Industry Risk and Financial Risk including cash flow analysis.

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