

ResApp Health

SPECULATIVE BUY

(no change)

Current price:	A\$0.25
Target price:	A\$0.32 ▲
Previous target:	A\$0.28
Up/downside:	29.9%
Reuters:	RAP.AX
Bloomberg:	RAP AU
Market cap:	US\$115.3m A\$172.3m
Average daily turnover:	US\$0.17m A\$0.25m
Current shares o/s	659.0m
Free float:	74.1%



Price performance	1M	3M	12M
Absolute (%)	15.1	33.8	10
Relative (%)	13	32.4	0.8

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Analyst(s) own shares in the following stock(s) mentioned in this report:

– ResApp Health

Continued success on regulatory approvals

- RAP has announced the receipt of TGA approval for its paediatric cough diagnostic, marking the third regulatory clearance since late August with CE Mark for both the paediatric and adult diagnostics being received in quick succession.
- Positive results were also achieved in RAP's sleep apnoea study, showing high rates of accuracy when compared to at-home comprehensive sleep studies.
- Our target price increases to A\$0.32 (from A\$0.28) and we maintain a Speculative Buy recommendation. We note RAP is recommended for investors with a higher risk profile.

Respiratory clearances coming in thick and fast

RAP has announced it has received TGA approval as a Class IIa medical device for paediatric respiratory disease. The receipt follows CE Mark approval for both children and adults which allows RAP to begin marketing the device across Europe. Given the TGA has a mutual recognition agreement with the EU on products classified lower than Class III (high-risk), clearance timeframes between approvals are typically quite short. In this regard, we expect TGA clearance for the adult respiratory diagnostic in the next month or two. The big prize remains achievement of FDA approval which we expect late CY19 to early CY20. While we hold the view that FDA clearance is likely, we continue to fully risk the commercial outcomes following approval (~50% of global market) until we gain clearer insights into initial commercial outcomes across Europe and Australia to prove up the business model.

Strong sleep apnoea results

RAP released positive results for its prospective, blinded at-home OSA study (n = >2,000) which was able to accurately classify patients into the three severity levels of OSA. The study was compared against an AASM Type II sleep study (full, but unattended polysomnography) and was performed simultaneously in the patient's home. The results were impressive, with an AUC of 0.91 (takes into account both sensitivity and specificity performances). As a rule, an AUC >0.9 is considered excellent. On a side note, a US based company Resonea Inc was recently granted FDA 510(k) clearance for use of its DROWZLE pre-screening device with similarly positive results on lower numbers of patients.

No changes to near-term forecasts

We have made no changes to our short-term forecasts. However we have reduced our risk weighting from FY23 onwards by increasing the addressable market from 45% to 50% following the receipt of the CE Mark and TGA clearances. We continue to see significant upside to our forecasts as risks surrounding regulatory catalysts are achieved and the commercial path becomes clearer.

Investment view – positive view maintained

Due to our changes in forecasts, our DCF valuation increases slightly to A\$0.32 (from A\$0.28) where we have set our price target. The downside risk is a failure to achieve FDA clearance in a timely manner. We retain our Speculative Buy recommendation. RAP is recommended for investors with a higher risk profile.

Financial Summary	Jun-18A	Jun-19A	Jun-20F	Jun-21F	Jun-22F
Revenue (A\$m)	1.00	0.00	2.24	10.80	21.60
Operating EBITDA (A\$m)	-6.49	-7.04	-4.91	3.42	13.93
Net Profit (A\$m)	-6.53	-7.24	-5.07	3.20	13.80
Normalised EPS (A\$)	(0.010)	(0.010)	(0.007)	0.004	0.018
Normalised EPS Growth	(35%)	5%	(33%)		322%
FD Normalised P/E (x)	NA	NA	NA	56.85	13.47
DPS (A\$)	-	-	-	-	-
Dividend Yield	0%	0%	0%	0%	0%
EV/EBITDA (x)	NA	NA	NA	51.32	11.83
P/FCFE (x)	NA	NA	NA	65.73	14.11
Net Gearing	(60.4%)	(94.8%)	(93.9%)	(91.7%)	(94.4%)
P/BV (x)	29.43	30.36	56.31	24.28	8.34
ROE	(77%)	(129%)	(115%)	60%	93%
% Change In Normalised EPS Estimates			0%	0%	0%
Normalised EPS/consensus EPS (x)			0.70	1.09	0.92

SOURCE: MORGANS, COMPANY REPORTS

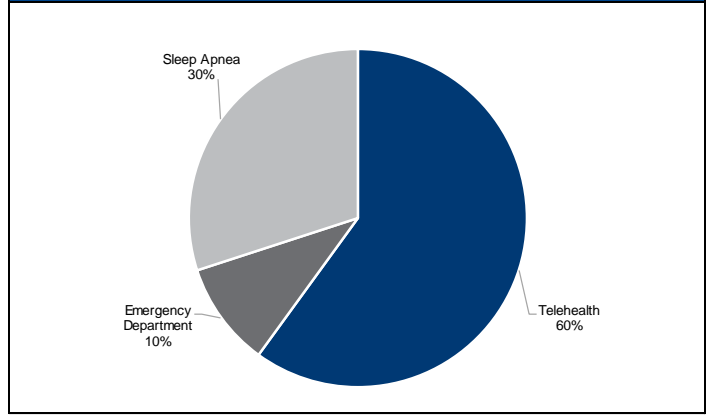
Figure 1: Business snapshot

ResApp Health (as at 02-10-19)		RAP AU / RAP.AX		Health Care Equipment & Services	
Market cap (A\$m):	163.1	Rating:		SPECULATIVE BUY	
Shares outstanding (m):	659.0	Price (A\$):		0.25	
Free float (%):	74%	Target price (A\$):		0.32	
Company website:	www.resapphealth.com.au	Upside/downside to target price (%):		30.0%	

Company description

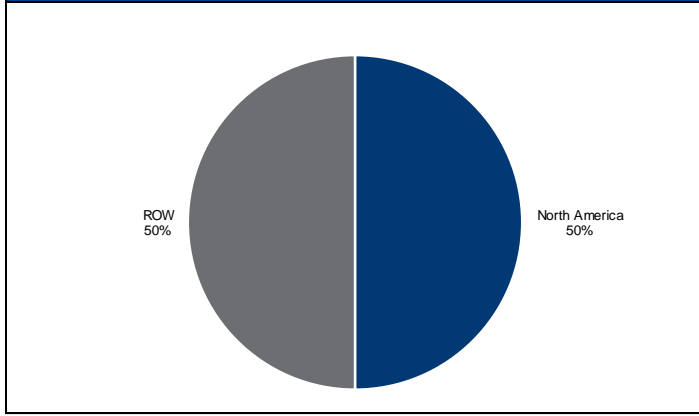
ResApp Health Limited (RAP) is a digital health company developing smartphone applications for the diagnosis and management of respiratory disease. The technology is based on machine learning algorithms that use cough sounds to diagnose and measure the severity of respiratory conditions without the need for additional hardware. TECHNOLOGY: RAP was created to diagnose and measure the severity of a range of chronic and acute diseases such as pneumonia, asthma, bronchiolitis and chronic obstructive pulmonary disease (COPD) using this insight. ResApp has developed new machine-learning algorithms to measure the severity of OSA from a patient's overnight breathing and snoring sounds recorded using a smartphone placed on a bedside table.

Business segmentation by revenue (medium-term estimate)



SOURCE: MORGANS

Geographical segmentation by revenue (medium-term estimate)



SOURCE: MORGANS

Basic revenue assumptions on ResAppDX (\$US)

Assumptions	2018A	2019A	2020F	2021F	2022F
Clinical Revenue					
\$ Fee / test	5.0	5.0	5.0	5.0	5.0
Patient visits to ED/GP (m)	1,199	1,259	1,322	1,388	1,457
% present with respiratory	10%	10%	10%	10%	10%
Children/Adult split	25%	25%	35%	45%	45%
Total address market (m)	149.9	157.3	231.3	312.3	327.9
Market share	0.0%	0.0%	0.0%	0.0%	0.0%
Revenue - Clinical (US\$m)	0.0	0.0	0.0	0.0	0.0
Telehealth Revenue					
\$ Fee / test	4.0	4.0	4.0	4.0	4.0
# Providers	0	0	1	3	6
Avg consults p.a. / provider (m)	0	3	4	5	5
Patients presenting with problem	30%	30%	30%	30%	30%
Market addressable (children/adults)	25%	25%	35%	45%	45%
Total address market (m)	0.00	0.00	0.42	2.03	4.05
Weighting within FY (%)	50%	100%	100%	100%	100%
Revenue - Telehealth (US\$m)	0.0	0.0	1.7	8.1	16.2
Revenue - Direct (US\$m)	0.0	0.0	0.0	0.0	0.0
Total revenue - ResApp (US\$m)	0.0	0.0	1.7	8.1	16.2
AUDUSD FX	0.75	0.75	0.75	0.75	0.75
Total revenue - ResApp (A\$m)	0.0	0.0	2.2	10.8	21.6

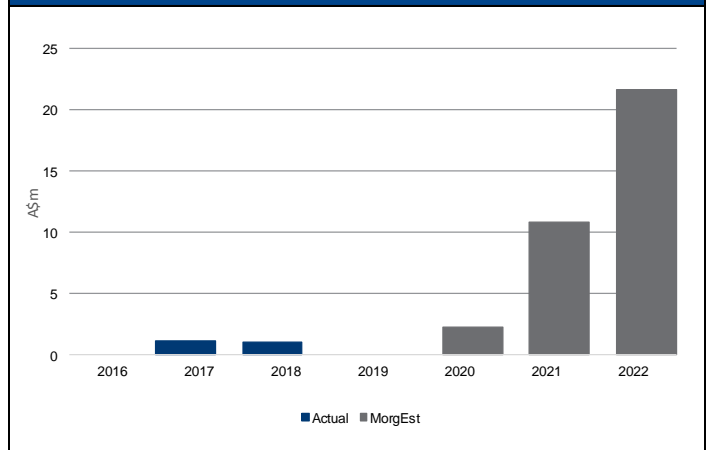
SOURCE: MORGANS

Milestone table

Timing	Milestone	Outcome
4QCY18	Top-line data from SMARTCOUGH-C-2	Mixed
2QCY19	File de novo premarket submission with FDA for lead pediatric product	Achieved
1QCY19	File for CE Mark in Europe for lead pediatric product	Achieved
1QCY19	SMARTCOUGH-C-2 Croup results	Insufficient data
2QCY19	Additional Australian adult study results	Achieved
3QCY19	CE Mark Clearance for pediatric application	Achieved
3QCY19	CE Mark Clearance for adult application	Achieved
4QCY19	FDA clearance for lead pediatric product	
4QCY19	Initial US commercialisation via telehealth partnership	
4QCY19	Sleep Apnea study top-line readouts	Achieved

SOURCE: MORGANS, COMPANY

Revenue



SOURCE: MORGANS, COMPANY

Key drivers / risks

Key Drivers

- Objective and repeatable** - the trend towards medical diagnostics being both objective and repeatable.
- Scalability** - the low cost nature of the technology makes it easily scaleable for the tele-health providers and primary care physicians
- Catalysts** - FDA clearance and initial commercialisation.

Key risks:

- Regulatory clearances** yet to be received from FDA in the US (largest potential revenue source).
- Clinical** - a number of trials are yet to read out - poor results could impact the ability to commercialise the technology.
- Funding risk** - delays in receiving clearances could impact the commercialisation timelines resulting in further working capital being required.
- FX risk** - Main source of revenues are expected to be generated in overseas jurisdictions.

SOURCE: MORGANS, COMPANY

Figure 2: Financial summary

Income statement						Valuation metrics					
	FY18A	FY19A	FY20F	FY21F	FY22F	Share price (A\$)	0.25	Price Target (A\$)	\$0.32		
Total revenue	1.0	0.0	2.2	10.8	21.6	DCF valuation inputs					
EBITDA	-6.5	-7.0	-4.9	3.4	13.9	Rf	4.00%	10-year rate	4.00%		
Associate income	0.0	0.0	0.0	0.0	0.0	Rm-Rf	5.00%	Margin	2.0%		
Depreciation	0.0	0.0	0.0	0.0	0.0	Beta	1.70	Kd	4.20%		
EBITA	-6.6	-7.3	-5.2	3.1	13.7	CAPM (Rf+Beta(Rm-Rf))	12.5%	Ke	12.5%		
Amortisation/impairment	0.0	0.0	0.0	0.0	0.0	Equity (E/EV)	100.0%	NPV cash flow (A\$m)	219.9		
EBIT	-6.6	-7.3	-5.2	3.1	13.7	Debt (D/EV)	0.0%	Minority interest (A\$m)	0.0		
Net interest expense	0.1	0.1	0.1	0.1	0.1	Interest rate	4.20%	Net debt (A\$m)	-3.0		
Pre-tax profit	-6.5	-7.2	-5.1	3.2	13.8	Tax rate (t)	30.0%	Investments (A\$m)	0.0		
Income tax expense	0.0	0.0	0.0	0.0	0.0	WACC	12.5%	Equity market value (A\$m)	222.9		
After-tax profit	-6.5	-7.2	-5.1	3.2	13.8			Diluted no. of shares (m)	693.0		
Minority interests	0.0	0.0	0.0	0.0	0.0			DCF valuation	\$0.32		
NPAT	-6.5	-7.2	-5.1	3.2	13.8						
Significant items	0.0	0.0	0.0	0.0	0.0						
NPAT post abnormals	-6.5	-7.2	-5.1	3.2	13.8						
Cash flow statement						Multiples					
	FY18A	FY19A	FY20F	FY21F	FY22F		FY18A	FY19A	FY20F	FY21F	FY22F
EBITDA	-6.5	-7.0	-4.9	3.4	13.9	Enterprise value (A\$m)	176.7	178.7	176.3	180.2	194.4
Change in working capital	0.2	1.6	-0.2	-0.7	-0.9	EV/Sales (x)	na	na	78.7	16.7	9.0
Net interest (pd)/rec	0.1	0.1	0.1	0.1	0.1	EV/EBITDA (x)	-27.2	-25.4	-35.9	52.8	14.0
Taxes paid	0.0	0.0	0.0	0.0	0.0	EV/EBIT (x)	-26.7	-24.5	-34.1	57.3	14.2
Other oper cash items	0.0	0.0	0.0	0.0	0.0	PE (x)	-25.2	-23.9	-35.5	57.4	13.6
Cash flow from ops (1)	-6.2	-5.3	-5.0	2.8	13.2	PEG x)	-0.7	4.4	-1.1	0.4	0.0
Capex (2)	0.0	0.0	0.0	0.0	0.0						
Disposals/(acquisitions)	0.0	0.0	0.0	0.0	0.0	Per share data	FY18A	FY19A	FY20F	FY21F	FY22F
Other investing cash flow	0.0	0.0	0.0	0.0	0.0	No. shares	659.0	659.0	693.0	721.0	736.0
Cash flow from investing (3)	0.0	0.0	0.0	0.0	0.0	EPS (cps)	-1.0	-1.0	-0.7	0.4	1.8
Incr/(decr) in equity	0.0	7.5	2.8	1.2	1.2	Dividend per share (c)	0.0	0.0	0.0	0.0	0.0
Incr/(decr) in debt	0.0	0.0	0.0	0.0	0.0	Dividend payout ratio (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Ordinary dividend paid	0.0	0.0	0.0	0.0	0.0	Dividend yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Preferred dividends (4)	0.0	0.0	0.0	0.0	0.0						
Other financing cash flow	0.0	0.0	0.0	0.0	0.0	Growth ratios	FY18A	FY19A	FY20F	FY21F	FY22F
Cash flow from fin (5)	0.0	7.5	2.8	1.2	1.2	Sales growth	na	na	na	382.1%	100.0%
Forex and disc ops (6)	0.0	0.0	0.0	0.0	0.0	Operating cost growth	-32.6%	-6.0%	1.5%	3.3%	3.8%
Inc/(decr) cash (1+3+5+6)	-6.2	2.1	-2.2	4.0	14.4	EBITDA growth	34.9%	-8.5%	30.3%	169.6%	307.9%
Equity FCF (1+2+4)	-6.2	-5.3	-5.0	2.8	13.2	EBITA growth	35.3%	-10.4%	29.2%	160.8%	334.2%
						EBIT growth	35.3%	-10.4%	29.2%	160.8%	334.2%
						NPAT growth	34.9%	-10.8%	30.0%	163.2%	330.6%
						Normalised EPS growth	34.9%	-5.4%	32.7%	161.9%	322.0%
Balance sheet						Operating performance					
	FY18A	FY19A	FY20F	FY21F	FY22F		FY18A	FY19A	FY20F	FY21F	FY22F
Cash & deposits	3.4	5.4	3.0	6.9	21.1	Asset turnover (%)	2.7	0.0	8.1	34.1	30.8
Trade debtors	0.0	0.0	0.1	0.4	0.9	EBITDA margin (%)	na	na	-219.1	31.6	64.5
Inventory	0.0	0.0	0.1	0.5	1.1	EBIT margin (%)	na	na	-231.1	29.1	63.3
Other current assets	1.0	1.0	1.0	1.0	1.0	Net profit margin (%)	na	na	-226.4	29.7	63.9
Goodwill	0.0	0.0	0.0	0.0	0.0	Return on net assets (%)		-105.6	-20.5	-90.2	-119.4
Other intangible assets	2.0	1.8	1.5	1.2	0.9	Net debt (A\$m)	-3.3	-5.4	-3.0	-6.9	-21.0
Fixed assets	0.0	0.0	0.0	0.0	0.0	Net debt/equity (%)	-60.4	-94.8	-93.9	-91.7	-94.4
Investments	0.0	0.0	0.0	0.0	0.0	Net interest/EBIT cover (x)		2.4	1.9	0.0	-0.1
Other assets	0.0	0.0	0.0	0.0	0.0	Invested capital		-275.2	-376.1	-21528.8	-4148.4
Total assets	6.5	8.1	5.7	10.1	25.0	ROIC (%)	-275.2	-376.1	-21528.8	-4148.4	3880.4
Short-term borrowings	0.0	0.0	0.0	0.0	0.0	Internal liquidity	FY18A	FY19A	FY20F	FY21F	FY22F
Trade payables	0.8	2.3	2.3	2.4	2.5	Current ratio (x)	5.8	2.8	1.8	3.7	9.5
Long-term borrowings	0.0	0.0	0.0	0.0	0.0	Receivables turnover (x)	15.7	0.0	48.7	40.3	32.4
Other term liabilities	0.1	0.1	0.1	0.1	0.1	Payables turnover (x)	11.0	4.6	3.1	3.1	3.1
Other liabilities	0.0	0.0	0.0	0.0	0.0						
Total liabilities	1.0	2.5	2.5	2.6	2.7						
Share capital	21.8	29.3	32.1	33.3	34.5						
Other reserves	7.1	7.1	7.1	7.1	7.1						
Retained earnings	-23.3	-30.7	-35.9	-32.9	-19.3						
Other equity	0.0	0.0	0.0	0.0	0.0						
Total equity	5.5	5.7	3.2	7.5	22.3						
Minority interest	0.0	0.0	0.0	0.0	0.0						
Total shareholders' equity	5.5	5.7	3.2	7.5	22.3						
Total liabilities & SE	6.5	8.1	5.7	10.1	25.0						

SOURCE: MORGANS RESEARCH, COMPANY

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