

# At the heart of coronary artery disease

AYA's Salix SaaS solution is well positioned to disrupt coronary computed tomography angiography (CCTA) and invasive coronary angiogram (ICA), the two gold standards of coronary artery disease (CAD) detection. In our view, AYA has developed a technology platform and global team that (pending key offshore regulatory approvals) can deliver significant installed base growth in markets that facilitate >16m procedures per year (with an initial revenue opportunity of A\$0.8-1.2b). We forecast first revenue agreements to commence in 1H23 (Aus) and then the UK (1H24) and US (2H24) initially ramping via NHS and Huntsville agreements respectively. Our \$1.44ps DCF valuation captures key risks including FDA approval and future funding requirements.

# Compelling technology, team & market opportunity

The Salix platform is cloud-based software that leverages proprietary AI algorithms to interpret data from CCTA scans and deliver findings rapidly at the point-of-care. Its core Salix Coronary Anatomy module is the only dedicated CAD software focusing on patient risk identification, vulnerable plaque detection and workflow optimisation (with reported vulnerable plaque biomarker specificity of 86% and balanced accuracy of 93% for stenosis >50%). Its assessment process is completed within 15 mins, offering material time / cost savings vs competing technologies and current industry practices (45+ mins for complex cases). AYA has established a highquality, global team with the credentials to drive approval and adoption as it leverages Salix's unique value proposition (improving outcomes and productivity for patients, providers and payers). The global imaging and informatics market was estimated to be worth US\$35b in CY21, with secular growth being driven by cost pressures, clinician shortages, AI adoption and reimbursement gains.

# Pathway to revenue generation

AYA's pathway to commercialisation in key markets (i.e. initially the US, UK, ANZ and Canada) is underpinned by: 1) research and pilot agreements with hospital groups and research institutes; 2) achieving key regulatory approvals; 3) progressing reimbursement frameworks with public and commercial payers; and, 4) reaching revenue agreements with key hospital groups. While the FDA's initial denial is a set-back, we believe AYA is well positioned to achieve 510(k) approval within the next 12 months and then a more substantial De Novo clearance shortly thereafter. We forecast \$1m of revenue in FY23E ramping to \$9m by FY25E (with a 60% 5yr CAGR thereafter).

# Attractive longer-term unit economics

AYA's business model is capital light and highly scalable. Longer-term we see a pathway to robust unit economics, including an >80% GM and strong EBITDA/FCF generation (MSTe FY30E adj EBITDA margin 43%). **We initiate with a valuation of \$1.44ps** (+115% upside) based on a DCF (CoE 15.4%, TGR 3.0%), cross-checked against peer trading and transaction multiples. Key risks: regulatory approvals, market conditions, competition and access to funding.

# ARTRYA

Artrya is an AI health-tech company, using datadriven solutions to assist cardiovascular diagnosis. Its core product Salix is a non-invasive diagnostic support solution to detect coronary artery disease. The cloud-based software draws on thousands of computed tomography coronary angiography scans to automatically detect vulnerable plaque, stenosis and other biomarkers in a patient's cardiovascular system.

#### www.artrya.com

AYA.AX
\$0.67
\$52m
\$1.44
\$36m
78.2m
78.2m
78.2m
78.2m Aug-22

#### AYA Share Price (A\$)



Source: FactSet

Tom Godfrey, CFA – Senior Analyst tom.godfrey@mstaccess.com.au

Please note that any opinions, estimates or forecasts regarding Artrya's performance are made by MST alone and does not represent opinions, forecasts or predictions of Artrya or its management. Artrya does not by its reference above or distribution imply its endorsement of or concurrence with such information, conclusions or recommendations.



# Financials

Year end 30-Jun	Units	FY20	FY21	FY22E	FY23E	FY24E
EV/sales	Х	39.2	76.2	16.6	14.4	5.7
EV/EBITDA	x	-12.0	-4.0	-1.2	-0.9	-0.9
EV/EBIT	х	-11.9	-3.9	-1.2	-0.9	-0.9
Div yield	%	0.0%	0.0%	0.0%	0.0%	0.0%
FCF yield	%	-3.2%	-6.5%	-29.4%	-40.9%	-43.4%
In a sure statement	11-14-	EV20	EV04	EVODE	EVODE	EV04E

Income statement	Units	FY20	FY21	FY22E	FY23E	FY24E
Revenue	A\$m	0	0	1	1	3
growth y/y	%	0%	-49%	358%	16%	153%
Gross profit	A\$m	0	0	1	1	2
Gross margin	%	100%	100%	100%	60%	70%
EBITDA	A\$m	-1	-4	-14	-17	-18
EBITDA margin	%	-327%	-1912%	-1435%	-1525%	-637%
EBIT	A\$m	-1	-4	-14	-17	-18
EBIT margin	%	-330%	-1930%	-1440%	-1536%	-645%
NPAT	A\$m	-1	-4	-14	-17	-18
NPAT margin	%	-332%	-1943%	-1440%	-1536%	-645%
Reported NPAT	A\$m	-1	-4	-14	-17	-18
Reported NPAT margin	%	-332%	-1943%	-1440%	-1536%	-645%

Per share data	Units	FY20	FY21	FY22E	FY23E	FY24E
Average diluted shares	m	0	40	67	78	131
EPS	cps	0	-10	-21	-22	-14
growth y/y	%	0%	nm	103%	5%	-36%
Reported EPS	cps	0	-10	-21	-22	-14
growth y/y	%	0%	nm	103%	5%	-36%
DPS	cps	0	0	0	0	0
Payout ratio	%	0%	0%	0%	0%	0%

Balance sheet	Units	FY20	FY21	FY22E	FY23E	FY24E
Cash	A\$m	2	13	36	14	39
Trade receivables	A\$m	0	1	3	3	3
Inventories	A\$m	0	0	0	0	0
Property, plant & equipment	A\$m	0	0	0	1	1
Right-of-use assets	A\$m	0	0	0	0	0
Goodwill	A\$m	0	0	0	0	0
Intangibles	A\$m	0	1	4	8	13
Other assets	A\$m	-2	0	0	0	0
Total assets	A\$m	0	15	42	26	55
Trade payables	A\$m	0	1	3	3	4
Provisions	A\$m	0	0	0	0	0
Borrowings	A\$m	0	0	0	0	0
Lease liabilities	A\$m	0	0	0	0	0
Other liabilities	A\$m	0	0	0	0	0
Total liabilities	A\$m	0	1	3	3	4
Total equity	A\$m	0	14	39	22	51
Invested capital	A\$m	-2	1	4	8	12
Net debt	A\$m	-2	-13	-36	-14	-39

Cash flow statement	Units	FY20	FY21	FY22E	FY23E	FY24E
EBITDA	A\$m	-1	-4	-14	-17	-18
Change in NWC	A\$m	0	0	-1	0	-1
Other	A\$m	0	2	4	1	1
Gross operating cash flow	A\$m	-2	-1	-11	-16	-17
Net interest	A\$m	0	0	0	0	0
Tax paid	A\$m	0	0	0	0	0
Operating cash flow	A\$m	-2	-1	-11	-16	-17
Capital expenditure	A\$m	0	-2	-5	-5	-5
Acquisitions	A\$m	0	0	0	0	0
Asset sales	A\$m	0	0	0	0	0
Other	A\$m	0	0	0	0	0
Investing cash flow	A\$m	0	-2	-5	-5	-5
Net borrowings	A\$m	0	0	0	0	0
Dividends paid	A\$m	0	0	0	0	0
New shares issued / other	A\$m	3	14	38	0	47
Financing cash flow	A\$m	3	14	38	0	47
Net change in cash	A\$m	1	11	23	-21	24
Free cash flow	A\$m	-2	-3	-15	-21	-23

Source: Company data, MST

Artrya	AYA.AX
Share Price (\$)	0.67
Valuation (\$)	1.44
Enterprise value (A\$m)	16
Market capitalisation (A\$m)	52

2H23E	1H23E	2H22E	1H22	2H21	1H21
ZHZJE	THZJE	ZHZZE			
1	1	1	0	0	0
-36%	770%	400%	103%	0%	0%
0	0	1	0	0	0
33%	90%	100%	100%	100%	100%
-9	-8	-7	-7	-2	-2
-1505%	-1546%	-797%	-10852%	-1179%	-6307%
-9	-8	-7	-7	-2	-2
-1518%	-1555%	-799%	-10887%	-1181%	-6430%
-9	-8	-7	-7	-2	-2
-1518%	-1555%	-799%	-10889%	-1196%	-6430%
-9	-8	-7	-7	-2	-2
-1518%	-1555%	-799%	-10889%	-1196%	-6430%

2H23E	1H23E	2H22E	1H22	2H21	1H21
78	78	78	55	48	31
-11	-11	-9	-12	-4	-6
29%	-12%	114%	95%	nm	nm
-11	-11	-9	-12	-4	-6
29%	-12%	114%	95%	nm	nm
0	0	0	0	0	0
0%	0%	0%	0%	0%	0%

Performance metrics	FY21	FY22E	FY23E	FY24E
ROE (%)	-29%	-52%	-55%	-49%
ROIC (%)	nm	-419%	-247%	-161%
Gearing (%)	0%	0%	0%	0%
ND / EBITDA (x)	nm	nm	nm	nm
EBITDA int cover (x)	nm	nm	nm	nm
EBIT int cover (x)	nm	nm	nm	nm
NWC (A\$m)	0	0	-1	-1
Gross OCF / EBITDA (%	nm	nm	nm	nn
Capex / sales (%)	983%	481%	429%	186%
EBITDA growth (%)	201%	244%	23%	6%
EBIT growth (%)	201%	241%	23%	6%
P/FCF (x)	-15.4	-3.4	-2.4	-2.3
P/BV (x)	3.7	1.3	2.3	1.0

Company description - AYA.AX Artrya

Artrya is an AI health-tech company, using data-driven solutions to assist cardiovascular diagnosis. Its core product Salix is a non-invasive diagnostic support solution to detect coronary artery disease. The cloud-based software draws on thousands of computed tomography coronary angiography scans to automatically detect vulnerable plaque, stenosis and other biomarkers in a patient's cardiovascular system.



# **Investment Thesis**

AYA's Salix SaaS solution is set to disrupt CCTA and ICA, the two gold standards of CAD detection. In our view, AYA has developed a technology platform and global team that can deliver significant installed base growth in markets that facilitate >16m procedures pa (with an initial revenue opportunity of A\$0.8-1.2b).

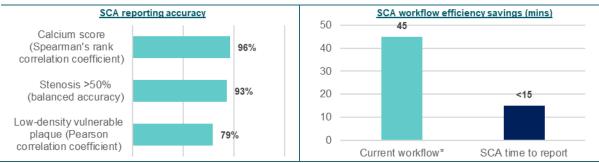


AYA's market opportunity is significant and benefits from structural growth as CCTA utilisation lifts...

Source: Frost & Sullivan, company data, HeartFlow, MST

AYA's core Salix Coronary Anatomy module is the only dedicated CAD software focusing on patient risk identification, vulnerable plaque detection and workflow optimisation (with reported vulnerable plaque biomarker specificity of 86% and balanced accuracy of 93% for stenosis >50%). Its assessment process is completed within 15 mins, offering material time / cost savings vs competing technologies and current industry practices (45+ mins for complex cases).

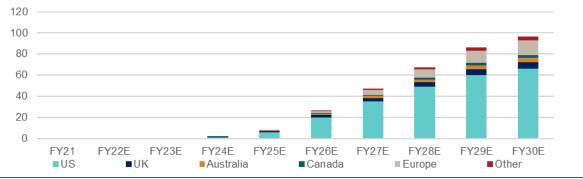
Salix offers significant accuracy & workflow efficiency gains, benefitting patients, providers and payers...



Source: Company data, MST

We forecast rapid Salix revenue growth once AYA achieves key regulatory approvals and begins to expands its installed base (\$9m by FY25E with a 60% 5yr CAGR thereafter). We expect the majority of this growth to come from the US market, underpinned by value-based care contracts with key integrated delivery networks and accountable care organisations.







**We value AYA at \$1.44ps** (\$113m equity value) utilising a discounted cash flow (DCF) valuation methodology which we cross-check / validate against peer transaction and trading multiples.

At \$0.67ps (implied market cap \$52m) and with \$36m of cash on hand, AYA is currently trading at an EV of \$16m. This represents 2.0x our FY25E sales forecast, well below the forward multiples (FY3) of the peer-set detailed in our valuation section. Taking a 5x multiple (referencing the Specialty Dx peer set), AYA's implied EV would be \$42m and equity value would be \$78m (equating to \$1.00ps, +49% vs current levels). **At an 8x multiple (referencing the entire peer set median), AYA's implied EV would be \$67m and equity value would be \$103m (equating to \$1.32ps, +97% vs current levels).** 

Furthermore, in Jul-21, key US competitor HeartFlow entered into a merger agreement with SPAC Longview Acquisition Corp II, **coming to market at a proposed EV of US\$2.4b representing 11.6x FY23E sales and 4.5x FY25E sales** (HeartFlow was forecasting a 4yr sales CAGR of 88%). While the deal was subsequently terminated in Feb-22 due to adverse market conditions, we note that **HeartFlow's Series E – II funding round valued the business at US\$1.5b (~38x FY21 sales).** These transaction multiples compare favourably vs AYA and further support the implied FY25E EV/sales of our \$1.44ps valuation (at ~9x).

AYA DCF	Units		FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E	FY32E
EBITDA	A\$m		-17	-18	-15	-3	11	29	43	50	56	63
Tax	A\$m		0	0	0	0	-2	-8	-12	-14	-15	-17
Change in working capital	A\$m		0	1	0	-1	-2	-1	1	-1	0	0
Operating cash flows	A\$m		-17	-17	-15	-4	7	21	32	36	40	45
Capex	A\$m		-5	-5	-6	-7	-6	-7	-7	-8	-8	-9
Free cash flow	A\$m		-21	-23	-20	-10	0	14	25	28	32	36
Discount factor			0.89	0.78	0.68	0.60	0.52	0.46	0.40	0.35	0.31	0.27
PV cash flows	A\$m		-19	-18	-14	-6	0	6	10	10	10	10
Total PV cash flows	A\$m	-11	l	Key Ass	umptio	ns						
Terminal value	A\$m	88	Т	Fax rate			30%	Debt Pr	emium		1.5%	
Total Value	A\$m	77	F	Risk free	rate		3.0%	Cost of	Debt		4.5%	
Net debt	A\$m	-36	E	3eta			1.9	Target g	earing		10%	
Equity value	A\$m	113	1	Market R	lisk Pren	nium	6.5%	WACC			14.2%	
SOI	m	78	(	Cost of	Equity		15.4%	Termina	l growth	rate	3.0%	
Value / share	A\$m	1.44										

We value AYA at \$1.44ps utilising a DCF methodology, incorporating key risks and future funding...

#### Source: MST

In this initiation report we explore:

- 1. **Compelling technology, team & market opportunity** On pages 5-16, we assess the value proposition of AYA's Salix technology platform, the global team it has assembled to drive commercialisation and the size/characteristics of its market opportunity;
- 2. Pathway to revenue generation On pages 16-21, we assess AYA's pathway to commercialisation and revenue in key markets including key research partnerships, regulatory approvals and commercial agreements;
- **3.** Attractive longer-term unit economics On pages 22-23, we assess AYA's revenue model and the potential for its unit economics longer-term as it scales revenues and its installed base;
- 4. Financials On pages 24-25, we present our P&L, cash flow and balance sheet forecasts for AYA;
- **5.** Valuation On pages 26-29, we set out our DCF valuation methodology, peer trading multiples and discuss relevant transaction multiples;
- 6. Key risks On pages 29-31, we discuss key risks to our AYA investment thesis, including: market conditions, competition, customers, technology, regulatory, key personnel and foreign exchange; and
- 7. **Appendix 1-4** From page 32 we set out key supplementary information including AYA's corporate timeline, product pipeline, board & senior management details and a breakdown of AYA's share register.

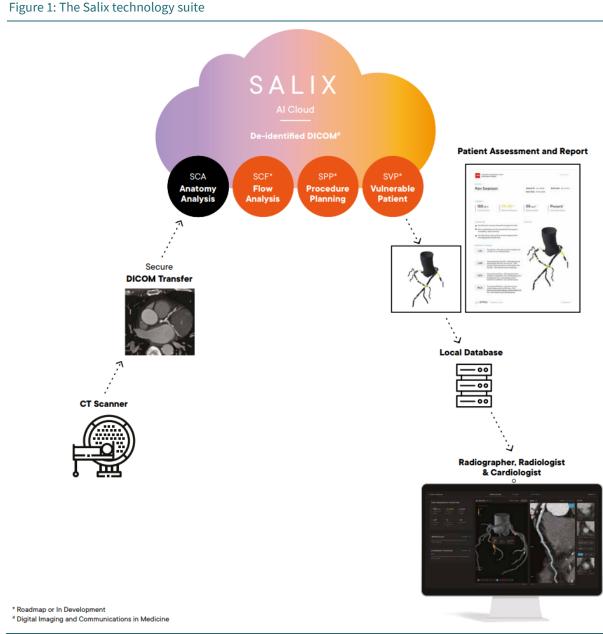


# 1. Compelling technology, team & market opportunity

AYA's Salix platform is well positioned to disrupt CCTA, ICA and other key imaging modalities used for CAD assessment. In this section we step through: 1) AYA's technology platform; 2) the global team it has built to drive the business; and, 3) the size and growth drivers of its total addressable market (TAM).

# Salix - A potential game-changer for CAD diagnosis

AYA's Salix platform is a cloud-based software solution that leverages proprietary AI algorithms to interpret data from CCTA scans and deliver findings rapidly in a single point-of-care solution.





The Salix technology suite includes two key products:

1. Salix Coronary Anatomy (SCA) – SCA is a cloud-based SaaS product that provides clinicians with rapid reporting of one of the best predictors of a future heart attack - **vulnerable plaque**. Vulnerable plaque is soft non-calcific plaque that is prone to rupturing, which can lead to coronary artery blood clots causing sudden blockages and potentially heart attacks. SCA supports the rapid assessment of CAD, with the



software highlighting urgent cases for immediate review, allowing clinicians to assess high risk patients in a timely manner; and

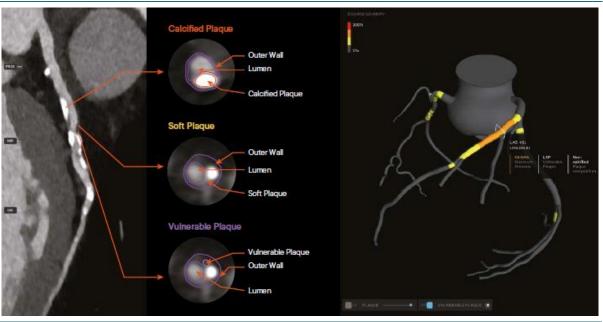
2. Salix Coronary Flow (SCF) – Still under development, SCF is a non-invasive, whole-heart blood flow assessment that provides clinicians with a measure of blood flow from CCTA scans (within the same assessment time as SCA). This reduces unnecessary invasive examinations while enabling clinicians to assess the obstructive nature of a lesion and create a more effective treatment plan for their patients (at the point of care).

In CY23, AYA expects to begin developing two additional Salix modules: 1) **Salix Procedure Planning (SPP)** – a product that allows clinicians to virtually model multiple invasive treatment scenarios in real time; and, 2) **Salix Vulnerable Patient (SVP)** – a product that allows clinicians to predict heart attack risk.

#### Spotlight on the Salix Coronary Anatomy product

For many patients, the rupturing of vulnerable plaque deposits is the hidden cause of sudden heart attacks. Until recently, the assessment of vulnerable plaque burden has required a high level of expertise and is an onerous/ manually intensive task. With SCA, specialists will be able to identify the presence of vulnerable plaque (and other high-risk imaging biomarkers) and present these findings in a timely manner (i.e. full report produced in 15 minutes) to patients that would otherwise have no warning of future cardiac events. Using standard CCTA scans, SCA can highlight cases for immediate review, enabling clinicians to deliver a risk-prioritised approach to diagnosis and treatment (superior to the current first-scanned, first-reported approach). SCA is the only dedicated CAD software solution focusing on patient risk identification, vulnerable plaque detection and workflow optimisation.

SCA produces a report (meeting the Society of Cardiovascular Computed Tomography standards) that includes a 3D representation of the patient's coronary images as selected by the reporting clinician. Once approved, the report can be immediately sent to the referring specialist for review (with the 3D model providing a detailed roadmap that highlights the most critical areas of disease).

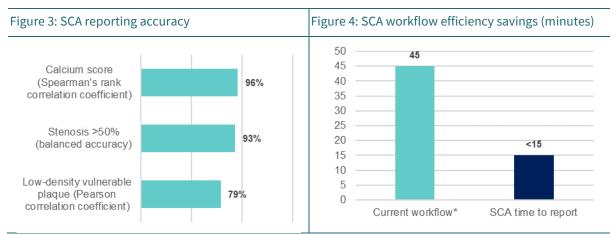


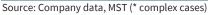
#### Figure 2: A visualisation of vulnerable plaque via the Salix 3D model

Source: AYA

SCA has been developed and validated on thousands of CCTA images/datasets provided under research collaborations with Envision Medical Imaging and the University of Ottawa Heart Institute. Performance studies report 96% accuracy for calcium scoring, 93% balanced accuracy for reporting stenosis >50% and 77% balanced accuracy in the critical detection of vulnerable plaque. The assessment process is completed within 15 minutes vs the typical 45 minutes plus it takes radiographers to prepare scans and radiologists to review (in complex cases).

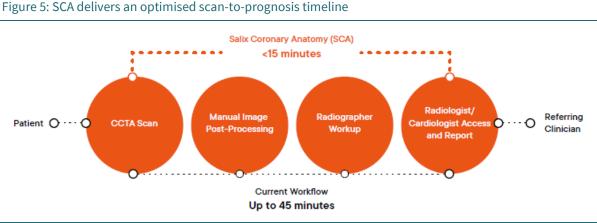






Current workflows are driving patient backlogs and are protracted due to: 1) the significant prep work that must be completed by radiographers; and, 2) the multiple tools required by radiologists to report (ultimately limited) findings. The SCA workflow has three key stages:

- 1. Patient scans are encrypted and automatically uploaded from the PACS (picture archiving & communication system) to Salix;
- 2. Salix interrogates the scan to generate a colour-coded 3D model of the patient's coronary arteries and prepare a comprehensive report of the patient's total coronary risk profile; and
- **3.** The encrypted patient overview (3D model, fully annotated coronary vessel images and report) is returned to the practice for display on the clinician's screen.



Source: AYA

#### A compelling value proposition for the global healthcare system

Salix provides benefits across the entire CAD care continuum, impacting patients (better experience and outcomes), providers (greater efficiency and revenue growth opportunities) and payers (lower costs and enhanced productivity/efficiency). For patients, Salix lowers the risk of complications by avoiding unnecessary invasive angiograms (39% of ICA patients were found to have no CAD<sup>1</sup>) and improves outcomes through targeting vulnerable plaque detection (low-attenuation plaque burden >4% linked to 5x higher likelihood of myocardial infarction<sup>2</sup>).

<sup>&</sup>lt;sup>1</sup> Low Diagnostic Yield of Elective Coronary Angiography, Patel et al., NEJM, Mar-10

<sup>&</sup>lt;sup>2</sup> Low-Attenuation Noncalcified Plaque on Coronary Computed Tomography Angiography Predicts Myocardial Infarction, Results From the Multicenter SCOT-HEART Trial, Williams et al., Mar-20



#### Figure 6: Salix offers a compelling value proposition for patients, providers and payers

Patients	Providers	Payers		
Entering the care pathway following chest pain episode	Diagnostic imaging practices, cardio specialist teams	Health insurers and public health systems		
Better patient experience	Greater efficiency	Lower cost per patient		
<ul> <li>3D model to visualise extent and location of disease</li> </ul>	<ul> <li>Seamless integration with existing systems</li> </ul>	<ul> <li>Faster reporting with less human intervention means lower cost</li> </ul>		
Simple-to-understand reports	Optimisation of clinical and	Avoidance of unnecessary		
<ul> <li>More convenient than a hospital</li> </ul>	practice workflows	ICA procedures		
admission for exploration and diagnosis	<ul> <li>No capital expenditure required</li> </ul>	Increased efficiency		
Better outcomes	Grow revenues	Reduced overall cost burden		
Faster diagnosis and time to treatment	Offer replacement services	Greater capital efficiency on		
· Detection of the leading cause of	for ICA procedures	installed equipment		
coronary death: Vulnerable Plaque	<ul> <li>Reduce reporting bottlenecks</li> </ul>	<ul> <li>Increased preventative measures</li> </ul>		
<ul> <li>Lower cost and risk of complications</li> </ul>	and improve CT machine use	able to be implemented due to		
by avoiding unnecessary invasive angiograms	<ul> <li>Expand reach, leverage Salix for teleradiology opportunities</li> </ul>	patient risk assessment		

Source: AYA

#### Assessing AYA's technology stack

Key components of AYA's technology stack include:

- **Infrastructure** AYA utilises Amazon Web Services (AWS) to deliver region-specific and on-demand computing resources to the Salix Suite. AWS provides secure servers for communicating with imaging providers through the Digital Imaging and Communications in Medicine (DICOM) protocol. AYA has completed the AWS Well-Architected review process to ensure Salix has been optimised from an operational, security and efficiency perspective;
- **Cybersecurity** AYA has partnered with CyberCX to ensure that both its internal and cloud-hosted systems are operating at the highest levels of security (e.g. adopting the US National Institute of Standards and Technology (NIST) Cybersecurity Framework);
- Al frameworks AYA leverages the Google TensorFlow platform to develop and deploy its highperformance AI and machine-learning solutions. TensorFlow coupled with AWS and the latest NVIDIA tech stacks allow AYA to train deep-learning models efficiently and accurately for image analysis; and
- Anonymisation Salix complies with the Health Insurance Portability and Accountability Act (HIPAA) Safe Harbour Provision guidelines, including the protection of all names, dates and locations.

Figure 7: AYA's tech stack is optimised from an operational, security and efficiency perspective



Source: All names and logos are the property of the companies listed above



# Backed by a world class team

Crucially, to drive the development and commercialisation of Salix globally (and as a key validation of its potential), AYA has put together a quality team of subject matter experts both in the US (its largest target market) and Australia.

## **United States**

- Dr Jacque Sokolov (Chair of AYA's Clinical Advisory Board & Non-Executive Director) Dr Sokolov is a senior cardiologist and advisor to over 100 healthcare organisations. He is a Director at Calviri (mRNA diagnostics) and a Director at Lucid Diagnostics (DNA diagnostics), having previously been the Chairman of the White House Health Project (Exec Committee) and on the Board of The American College of Medical Quality. Dr Sokolov will drive key US clinical research partnerships and help establish reimbursement agreements with US payers. He offers AYA board and executive level access to key hospitals systems, research institutes and payers. In Aug-22 Dr Sokolov was appointed to the AYA Board;
- **Dr Jacob Agris (Chief Medical Officer)** In Jun-22, AYA announced that Dr Agris had joined as its fulltime CMO (based in New York). He is an accomplished physician with experience across C-suite roles and Fortune 500 companies. He was previously Chief Medical and Innovation Officer at Convatec and before that had been Head of Medical Affairs at Bayer. He has a strong track record with the FDA, having been involved in >20 Class 1, Class 2 and NDA submissions, with two of these gaining approval after an initial denial (including a deep understanding of software 510(k) and de novo submissions). He holds a Doctorate of Medicine and a PhD in Electrical & Computer Engineering;
- **Dr Tom Cheek (Clinical Advisory Board Member)** Dr Cheek is a certified internal medicine physician and executive with extensive experience in healthcare management. He has had a 25+ year career at Optum and UnitedHealth Group and is currently the Chief Medical Officer of UnitedHealthcare Clinical Services Continuum. He heads a global consultancy on US health economics (Columbia Health Management) and was previously Senior Medical Director at Aetna;
- **Dr Jim Bonnette (Clinical Advisory Board Member)** Dr Bonnette has had a 40+ year career in healthcare, focusing on strategic transformation of healthcare delivery systems (including value-based care). He is currently Executive VP of Optum Health and Chief Health Officer at Cogitativo. He was previously Chief Medical Officer at Vanguard Health Systems (an integrated healthcare company with 26 hospitals and outpatient centres across the US);
- **Dr Jack Lewin (Clinical Advisory Board Member)** Dr Lewin has had a 42+ year career in healthcare, both as a physician and health policy leader. From CY06-12, he was the CEO of the American College of Cardiology, representing 40k+ cardiologists across the US. He is currently the Chairman of The National Coalition on Healthcare and was previously the CEO of The Cardiovascular Research Foundation;
- Dr Nicolas Chronos (Clinical Advisory Board Member) Dr Chronos is an interventional cardiologist and Managing Partner of Lake Country Medical Group. He is an expert in cardiac regenerative medicine, cardiovascular medical device assessment and translational cardiovascular medicine, having published several books and >200 peer-reviewed articles. He was previously an Adjunct Professor of Medicine and Cardiology at Stanford University;
- **Ted Schwab (Co-CEO, AYA US)** Ted Schwab brings >35 years of healthcare and consulting experience to AYA, having previously held roles as Chief Innovation Officer at CHI Health and Partner at Strategy&. He can leverage extensive networks across major hospital groups, research institutes and payers to help drive AYA's commercialisation and growth in the US market; and
- Jory Tremblay (Co-CEO, AYA US) Jory Tremblay brings >30 years of healthcare experience, having previously been Head of Growth at Babylon Health (AI driven, value-based care services company). He has significant experience in developing value-based and risk-based contracting strategies.



Figure 8: AYA's US leadership team draw experience from a range of healthcare and research institutions



Source: All names and logos are the property of the companies listed above

#### Australia

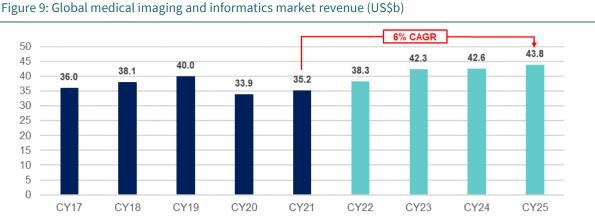
- **Bernie Ridgeway (Chairman)** Bernie Ridgeway brings >37 years of private and ASX-listed corporate experience to AYA. He was Managing Director of leading global mining technology company Imdex (IMD.AX) for 20 years, having retired in Jul-20. During his time at IMD, the business grew revenues from ~\$20m to >\$270m and its market cap from <\$10m to >\$600m;
- John Barrington (Co-Founder, Managing Director & CEO) John Barrington has >30 years of experience in corporate strategy and technology, having co-founded AYA in CY18. He spent 12 years with global IT leader Unisys before founding Nerve Systems (big data/predictive analytics) and Barrington Consulting Group (management consulting). He is currently the Chair of The Harry Perkins Institute of Medical Research and Deputy Chair of the Federal Government Creative Economy Taskforce;
- John Konstantopoulos (Co-Founder & Executive Director of Product) Having co-founded AYA in CY18, John Konstantopoulos leads the clinical and commercial development of Salix globally. He was previously the Global Industry Lead for Electronics at IBM and part of IBM's Global Industry Academy, advising CEOs and boards for some of the world's largest companies on product commercialisation, strategy and digital transformation. He also serves on the Faculty Advisory Council for Engineering and Science at Curtin University;
- **Professor Girish Dwivedi (Chief Scientific Officer & Clinical Advisory Board Member)** Dr Dwivedi has a PhD in non-invasive cardiac imaging and has >160 peer-reviewed journal papers either published or accepted worldwide. He is the Wesfarmers Chair of Cardiology at the University of Western Australia and a Consultant Cardiologist at the Fiona Stanley Hospital in WA. He was previously a clinician scientist at The Canadian Institute of Health Research and as AYA's CSO he will drive the clinical development of the Salix Suite of products; and
- Dr Julien Flack (Chief Technology Officer) and Mark Wainwright (Chief Financial Officer) See our detailed breakdown of Senior Management in Appendix 3.



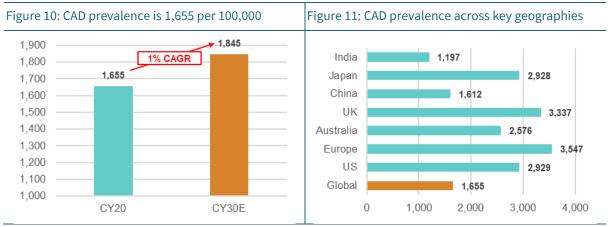
# Targeting a significant global market with secular growth

## Sizing AYA's total addressable market

The global medical imaging and informatics market (i.e. product sales across CT, ultrasound, X-ray, MRI, imaging informatics) was estimated to be US\$35.2b in CY21. Furthermore, Frost & Sullivan estimates that the market will reach US\$43.8b in CY25E, representing a 6% CAGR<sup>3</sup>. Of this total market, North America represents 25%, Europe 17%, APAC 39% and RoW 19%.



To isolate AYA's addressable market, we start by assessing the prevalence of CAD. Cardiovascular disease is the leading cause of death globally, with 17.9m deaths in CY19 equating to 32.2% of total deaths (increasing from 27.9% of total deaths in 2000). Within this, CAD affects ~126m people globally (1.72% of the population) and accounts for ~9m deaths annually<sup>4</sup>. The current prevalence rate for CAD is 1,655 per 100,000 people, with studies suggesting this could increase to 1,845 by CY30<sup>5</sup>.



Source: Khan et al, company data, MST

Interestingly, AYA's three key markets – the US (2,929 per 100,000), UK (3,337) and Australia (2,576), all have higher rates of CAD prevalence than the global average. As previously discussed, Salix is positioned to disrupt non-invasive (i.e. CCTA) and invasive (i.e. ICA) CAD diagnosis. In CY21, CCTA volumes were estimated to have reached 4.2m across North America (2.5m) and Europe (1.7m). By CY30, this is forecast to increase +69% to 7.1m, representing a CAGR of 14%<sup>6</sup>.

Source: Frost & Sullivan, company data, MST (chart uses F&S base case estimates)

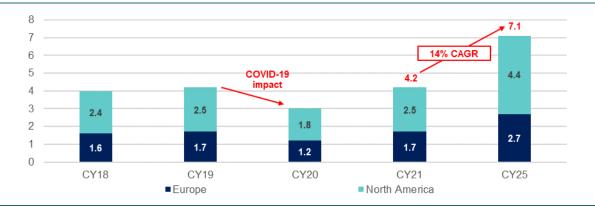
<sup>&</sup>lt;sup>3</sup> Global Market for AI-driven Imaging for Coronary Artery Disease/Coronary Heart Disease Diagnosis, Frost & Sullivan, Nov-21

<sup>&</sup>lt;sup>4</sup> Global Health Estimates 2019, WHO

<sup>&</sup>lt;sup>5</sup> Global Epidemiology of Ischemic Heart Disease: Results from the Global Burden of Disease Study, Khan et al., Jul-20 <sup>6</sup> Global Market for AI-driven Imaging for Coronary Artery Disease/Coronary Heart Disease Diagnosis, Frost & Sullivan, Nov-21



Figure 12: CCTA volumes in North America & Europe (m)



Source: Frost & Sullivan, company data, MST

In Australia, the Medicare data shows ~121k CCTAs were performed in CY21, having increased at a CAGR of 17% since CY12.

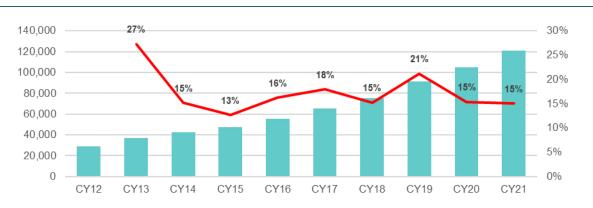


Figure 13: Australian CCTA volumes have increased at a 17% CAGR between CY12-21

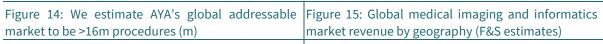
Source: Medicare, MST (Medicare item 57360 - Computed tomography of coronary arteries performed on a minimum 64 slice scanner)

In terms of ICA, studies have found that ~1.6m invasive coronary procedures are performed each year (1.2m diagnostic catheterisations and 0.4m percutaneous coronary interventions)<sup>7</sup>.

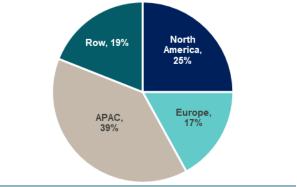
Using the geographical breakdown of the global medical imaging and informatics market discussed earlier (i.e. North America 25%, Europe 17%, etc) we can extrapolate the figures above to derive a TAM for AYA. On this basis, we estimate that the 4.2m of CCTA scans estimated for North America and Europe translates to a ~10m global opportunity. Similarly, we estimate that the ~1.6m of invasive coronary procedures recorded in the US could equate to a 6.4m global ICA opportunity.

<sup>&</sup>lt;sup>7</sup> Current operator volumes of invasive coronary procedures in Medicare patients: implications for future manpower needs in the catheterization laboratory, Maroney, Khan, Powell, Klein, Catheter Cardiovasc Interv. Jan-13









Source: Frost & Sullivan, company data, MST

In aggregate we estimate the Salix platform has a global opportunity of >16m procedures per annum. Deriving global average revenue per scan for AYA is difficult given variances across geographies and revenue models (e.g. pay-go per case, subscription per clinician, etc) but we assume a conservative initial range of A\$100-150 per scan in North America (comps currently pricing at US\$700-1,200) and A\$30-50 per scan in RoW. This translates to an initial global revenue opportunity of A\$0.8-1.2b. We see significant upside to this initial A\$1b estimate over the longer-term through pricing (AYA competitors at >10x in some cases) and through secular growth drivers (detailed ahead). Key US competitor HeartFlow estimates its TAM (Plaque + FFR) as US\$17.9b, which given its significantly higher pricing (MSTe US\$1,000-1,200k) broadly aligns with our 16m global volume estimate. Long-term HeartFlow believes there is a US\$49.7b TAM available, again highlighting the significant upside on offer for AYA.

#### Assessing AYA's key growth drivers

AYA's TAM is set for strong growth long term, underpinned by the following structural drivers:

• A growing and ageing global population – The global population is forecast to increase from 7.9b in CY21 to 8.5b in CY30E (0.9% CAGR), 9.7b in CY50E (0.7% CAGR) and 10.9b in CY100E (0.4% CAGR). Over this timeframe, the proportion of the global population aged over 65 years is forecast to increase from 9.6% in CY21 to 11.7% in CY30E, 15.9% in CY50E and 22.6% in CY100E<sup>8</sup>. This population growth and ageing trend is expected to increase the overall burden on the global healthcare system and drive increased demand for diagnostic imaging services. We also note that the >60yrs age cohort accounts for ~83% of cardiovascular disease deaths globally each year<sup>9</sup>;

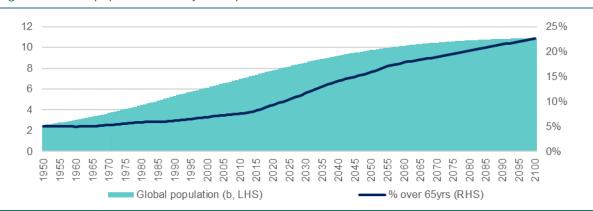


Figure 16: Global population % >65yrs is expected to lift from 9.6% in 2021 to 22.6% in 2100

Source: UN Population Division, MST

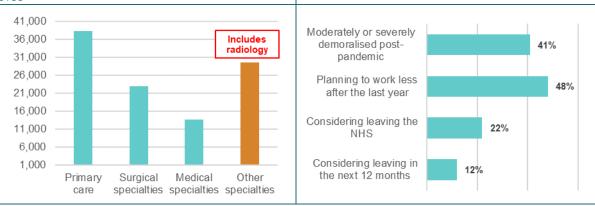
<sup>8</sup> World Population Prospects 2019, United Nations, Aug-19

<sup>&</sup>lt;sup>9</sup> Global Health Estimates 2019, WHO



- **Pressure on the system** Ageing populations, the rising incidence of infectious disease, the prevalence of chronic disease and funding / resource constraints continue to place stress on health systems globally. Frost & Sullivan highlight an example in the UK for CY18, >50% of MRI referrals had to wait >14 days for the test to take place and >30% had to then wait 7 days or more to receive results<sup>10</sup>. The impact of COVID-19 on diagnostic procedures globally (i.e. movement restrictions curbed volumes materially) has raised concerns of a longer-term deterioration in cardiovascular health outcomes. A study of 909 facilities performing cardiovascular disease diagnosis in 108 countries found that volumes declined 64% from Mar-19 to Apr-20<sup>11</sup>;
- **Global clinician shortages** In the US, there is projected to be a 54-139k shortage of physicians by CY33, including a 17-42k shortage in the category of 'other specialities' which includes radiology<sup>12</sup>. In the UK, it is estimated that the NHS radiologist workforce is currently 33% short, requiring an additional 1,939 specialists to meet safe staffing levels. By CY25, it is projected that the UK radiologist shortfall will reach 44% (3,613 specialists below real demand)<sup>13</sup>. These shortages are driving increased reporting backlogs and impacting the ability for health systems to conduct safe interventional radiology. We believe technologies such as Salix that facilitate improved productivity and diagnosis rates are likely to see accelerated adoption in this environment;

Figure 17: Estimated US physician shortages by Figure 18: A survey of 1,089 UK radiologists in Apr-21 CY33\*



Source: AAMC, RCR, MST (\*takes the mid-point of each category)

- **Precision medicine gaining momentum globally** The US FDA defines precision medicine as the "tailoring of disease prevention and treatment to take into account differences in people's genes, environments and lifestyles." The overall goal is to target the right therapies to the right patients and the right time<sup>14</sup>. Frost & Sullivan see this global trend as encouraging the use of technology to drive more precise and individualised medical imaging. This is expected to lead to an increased focus on early detection, improved first-time-right outcomes, more precise predictions of treatment responses, increase value from diagnostic imaging and a shift to more patient-centric care. This is likely to support uptake of AI solutions that enable clinicians to diagnose in real time more accurately and more effectively design tailored treatment programs<sup>15</sup>;
- CCTA & AI solutions driving improved outcomes vs current diagnostic strategies A 2014 study found that heart attack and sudden cardiac death are the first manifestations of coronary atherosclerosis in 50% of males and 64% of females<sup>16</sup>. This suggests an ongoing need to diagnose CAD

<sup>&</sup>lt;sup>10</sup> Radiology, GIRFT Programme National Specialty Report, Halliday, Maskell, Beeley & Quick, Nov-20

<sup>&</sup>lt;sup>11</sup> Impact of COVID-19 on Diagnosis of Heart Disease Worldwide, Einstein, Shaw, Hirschfeld, et al., on behalf of the INCAPS COVID Investigators Group, American College of Cardiology Foundation, Jan-21

<sup>&</sup>lt;sup>12</sup> New AAMC Report Confirms Growing Physician Shortage, Association of American Medical Colleges, Jun-20

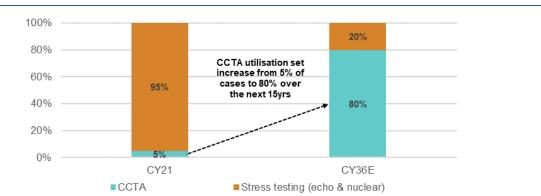
 <sup>&</sup>lt;sup>13</sup> New RCR census shows the NHS needs nearly 2,000 more radiologists, The Royal College of Radiologists, Apr-21
 <sup>14</sup> US FDA, Sep-18

<sup>&</sup>lt;sup>15</sup> Growth Opportunities in Precision Medical Imaging, Forecast to 2022, Frost & Sullivan, Jan-19

<sup>&</sup>lt;sup>16</sup> Comprehensive plaque assessment by coronary CT angiography, Pál Maurovich-Horvat, Maros Ferencik, Szilard Voros, Béla Merkely and Udo Hoffmann, Nature Reviews Cardiology, Apr-14



earlier and more accurately. ICA remains a standard test for CAD despite it requiring an arterial puncture, extended hospitalisation and it not offering plaque identification/characterisation. A global study of 5,179 patients stable coronary disease and moderate-severe ischemia found no evidence that an initial invasive strategy reduced the risk of ischemic cardiovascular events or death compared to an initial conservative strategy (with a follow-up angiography if the initial therapy failed)<sup>17</sup>. Against this backdrop, CCTA has become a gold standard in CAD detection, providing non-invasive and accurate reading into the presence and composition of atherosclerosis. The downside is that current methods are subjective and require extensive manual analysis due to the complexity of assessing plaques.

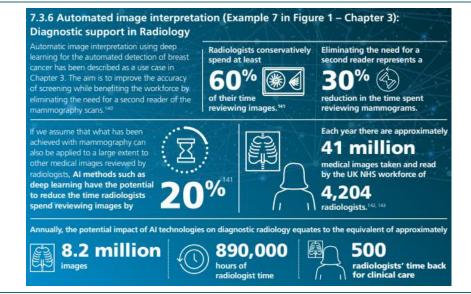


#### Figure 19: Non-invasive cardiac testing utilisation - % of cases (HeartFlow estimates)

Source: HeartFlow, MST

The ability for AI to identify complex biomarkers and minimise unnecessary invasive interventions, translates to a significant opportunity for disruption / augmentation of the current testing framework. AI driven imaging analysis systems leverage adaptive intelligence to improve decision making based on ongoing feedback/results. This self-learning ability can reduce the time to detect anomalies in diagnostic images, leading to improved patient outcomes. Furthermore, 3D heart models (such as those provided by Salix) allow clinicians to better assess CAD indicators vs conventional 2D images (that are static and offer limited volumetric data). In the Topol Review (UK), it was projected that ~50% of radiology reporting could be supported by AI within a decade<sup>18</sup>; and

#### Figure 20: Deployment of AI technologies a key recommendation of the Topol Review



Source: NHS – The Topol Review

<sup>&</sup>lt;sup>17</sup> Initial Invasive or Conservative Strategy for Stable Coronary Disease, ISCHEMIA Research Group, NEJM, Apr-20

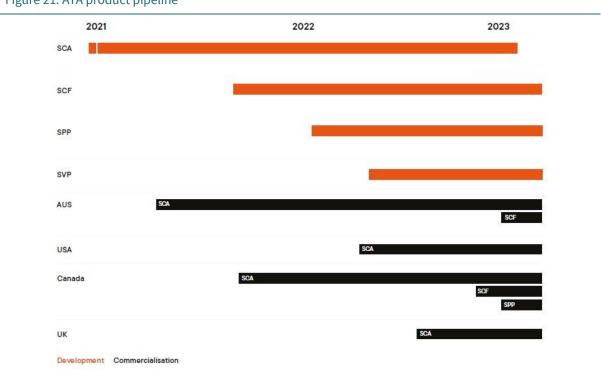
<sup>&</sup>lt;sup>18</sup> Topol Review, Preparing the healthcare workforce to deliver the digital future, Secretary Health & Social Care, Feb-19



• Increasing regulatory support and reimbursement – Favourable government and health plan policies are supporting the earlier and more extensive use of imaging services globally. For AYA specifically, in Jun-21 the American Medical Association (AMA) approved the first AI-driven Current Procedural Terminology (CPT) code specific to radiology (i.e. a new CPT III code for VCF detection as an incidental finding in chest CT)<sup>19</sup>.

# 2. Pathway to revenue generation

AYA's pathway to commercialisation and revenue in key markets (i.e. initially the US, UK, ANZ and Canada) is underpinned by: 1) establishing research and pilot agreements with hospital groups and research institutes; 2) achieving key regulatory approvals (e.g. FDA, TGA, CE MARK); 3) progressing reimbursement frameworks with public and commercial payers; and, 4) reaching commercial agreements with key hospital and imaging groups. In this section we assess the pathway to revenue and key milestones for each key market.



#### Figure 21: AYA product pipeline

Source: AYA, MST

# **United States**

The US is AYA's largest target geography, representing ~34% of its core market (AYA estimate) and with >US\$500b in annual cardiovascular disease care costs. Its pathway to revenue in the US is contingent on establishing clinical agreements with hospital groups (Huntsville announced May-22), obtaining FDA approval (initial 510(k) application unsuccessful in Jun-22) and establishing commercial contracts / reimbursement models with key payers, IDNs (integrated delivery networks) and ACOs (accountable care organisations).

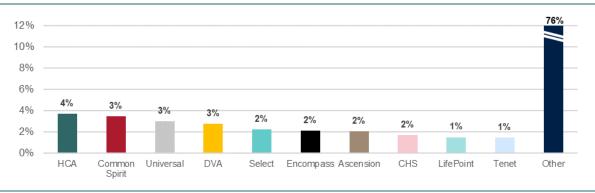
# 1. Hospital agreements - Spotlight on Huntsville

AYA is aiming to establish research (and ultimately revenue) agreements with some of the largest and most high-profile hospital systems in the US. AYA is engaging with these groups at the board or C-suite level rather than at the clinician level, allowing for rapid, top-down adoption of its technologies once deals are implemented. Building out its installed base in the US beginning with Tier 1 names will allow AYA to drive broader adoption (e.g. mid-market) and new logo wins longer-term.

<sup>&</sup>lt;sup>19</sup> Zebra Medical Vision, Jul-21



Figure 22: US hospital market structure is highly fragmented – Top 10 providers represent ~24% of facilities





On 9-May-22, AYA announced that it had signed its first US clinical partnership with the Alabama-based Huntsville Heart Center, a national leader in CCTA that treats >80k cardiac patients per year. The Huntsville program is led by Dr Michael Ridner (Director of Cardiac CT) and will transition from initial research/validation to identifying clinical business models (integration, CCTA scaling) to doctor adoption and a commercial contract. Huntsville currently conducts 3.5-3.8k CCTAs per annum and is expecting this to double within the next 12-18 months.

AYA expects the clinical trial to be completed by Oct-22, paving the way for Salix SCA to be used commercially in the US thereafter (pending regulatory clearances).

#### 2. FDA approval – Where to from here?

Salix had been classified at a Class 2 product by the FDA and was submitted for 510(k) approval in Sep-21. On 16-Jun-22, AYA announced that its initial 510(k) application for SCA had not been successful. We believe the crux of this initial response was that AYA's submission failed to show substantial equivalence with its designated predicate (i.e. peer / competitor product). With Dr Agris now onboard and AYA closely reviewing initial feedback, we expect the company to refile its 510(k) shortly and potentially pursue a dual-track process along with a De Novo application. This will allow AYA to get a baseline product into the market quickly (potentially for early FY24 commercial agreements) while then also pursuing a more extensive De Novo approval (9-12 months review time, more clinical data required).

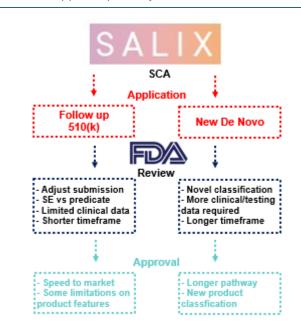


Figure 23: Assessing potential SCA approval pathways from here

Source: FDA, MST

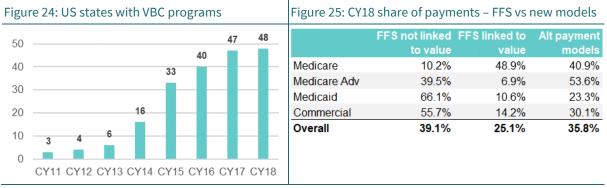


Our research highlights other examples of products initially denied that then gained 510(k) approval within 6-12 months (e.g. PAVMED, Arch Therapeutics). We also note various sources (Essenvia, Vascular Sciences) stating that some 64-75% of initial 510(k) applications are rejected by the FDA. So, while its initial rejection is a set-back, we believe AYA is well positioned to achieve 510(k) approval within the next 12 months and then a more substantial De Novo clearance shortly thereafter.

### 3. Commercial integration – Hospitals, IDNs and ACOs

AYA has initially targeted partnerships with large hospital systems, where it can transition up-front research/validation programs into longer-term commercial agreements (Huntsville as a proxy is expected to be ~4 months from research to commercialisation, pending FDA approval). As it executes more of these agreements and builds out its dataset/installed base, it can engage with integrated delivery networks and accountable care organisations regarding potential risk-based and value-based contracts.

To drive better cost control across the US health system, the US Centers for Medicare & Medicaid Services (CMS) is pushing a transition from fee-for-service (FFS) reimbursement to value-based care (VBC). Its goal is to have 100% of reimbursement tied to VBC by CY25 (from less than ~20% pre-pandemic).



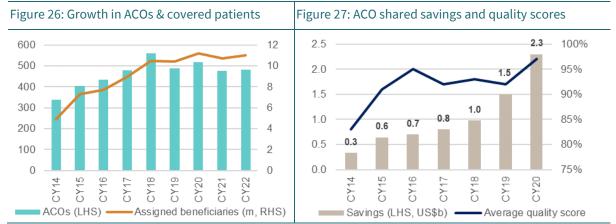
Source: CMS, PCC, UPenn, MST

IDNs are clinical organisations (often hospital groups that own health insurance plans) with a focus horizontal/vertical integration to reduce unnecessary care and driving clinical efficiency. These networks in some cases manage hundreds of hospitals and have the power to influence industry practices. We also note that in most cases IDNs can act as group purchasing organisations, allowing medtech partners to scale quickly and penetrate more broadly. The largest IDNs in the US include HCA (US\$44b of net patient revenue), CommonSpirit Health (US\$30b), Ascension Health (US\$22b) and Trinity Health (US\$19b), with the top 10 accounting for ~US\$194b of net patient revenue<sup>20</sup>.

ACOs are groups of clinicians, hospitals and other services providers that come together to provide coordinated, quality care plans for patients. The aim of an ACO is to improve patient outcomes while reducing costs, with commercial payers and Medicare sharing up to 50% of the savings. As at Jan-22, the US has 483 ACOs involved in the CMS Shared Savings Program with 11m assigned beneficiaries. In CY20, the program generated US\$2.3b in total shared savings with an average overall quality score of 97%. As an example, the largest ACO in CY20 (by gross savings) was the Palm Beach Accountable Care Organisation which had a patient population of 67,521 and generated US\$63m of gross savings which translated to a shared payment of US\$29m.

<sup>&</sup>lt;sup>20</sup> Definitive Healthcare, May-22





Source: CMS, MST

The VBC transition is accelerating in the US and presents a material opportunity for both providers and medtech companies. For AYA, the ability to partner with IDNs and ACOs to drive large-scale and rapid adoption of the Salix platform represents a compelling opportunity. Salix offers potentially significant reductions in cardiac care costs, allowing these organisations to further increase savings (and drive higher quality patient outcomes).

AYA can target contracts with IDNs and ACOs to assist cardiology units in cost management via licensing of the Salix Suite. These VBC contracts have the potential to provide AYA with a share of cardiovascular care savings where Salix reduces: 1) unnecessary angiograms; 2) unnecessary nuclear and stress tests; 3) emergency department observation bed days; and/or, 4) unnecessary hospital admissions. Below we highlight an example of VBC contract economics based on MSTe:

Potential AYA revenue	A\$m	3.3	
AYA share	US\$m	2.3	20% - MSTe
Potential savings	US\$m	11.5	25% - American College of Cardiology estimates
Cardiovascular care component	US\$m	46.1	12.1% - \$500b CVD spend / \$4,124b total
Total annual payment	US\$m	380.8	
Patients covered by health system	#	22,774	CY22 average beneficiaries per ACO
Annual patient management fee	US\$	16,723	CY20 average CMS benefit per patient rolled forward
VBC contract economics	Units	Value	MST comment

#### Figure 28: Value-based care contracts could offer AYA material revenue upside in the US

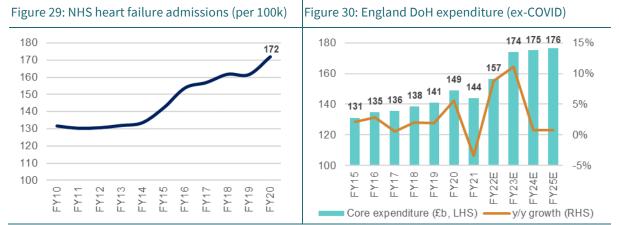
Source: CMS, Definitive Healthcare, ACC, MSTe

The above example uses an ACO with 23k beneficiaries (national average). We note that the largest ACOs in the US have 5-6x this number, highlighting the revenue upside on offer at the top-end of the market (i.e. \$15m+ pa). We expect similar economics for deals with IDNs / commercial payers with AYA likely to target a mixture of Medicare Advantage plans, commercial health and corporate benefit plans (potential examples include Kaiser Permanente, Intermountain, Presbyterian).

#### **United Kingdom**

AYA continues to progress its UKCA approval for SCA, passing audits in Mar-22, Jun-22 and clearing its Technical File Review in Jun-22. In Oct-21, AYA entered into a Framework Agreement with NHS Shared Business Services (SBS) which appoints it as a potential supplier to Approved Organisations (i.e. NHS bodies, emergency services, government bodies) for AI, imaging and radiotherapy equipment. The initial term of the agreement is Sep-21 to Sep-23 (with a 2 year extension option for NHS SBS). Once AYA achieves UCKA approval it can begin leveraging the simplified procurement process that the SBS agreement offers.





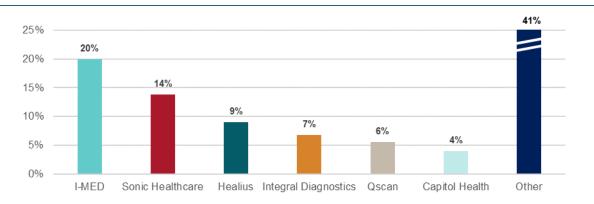
Source: NHS, Public Health England, The Kings Fund, MST

We expect UKCA regulatory approval to be achieved in 1H23 with NHS Trust Hospital workflow research set to be completed later in FY23. The results of the latter will support sales and marketing initiatives at the 1,250 NHS hospitals in the UK, with first revenue agreements expected in CY23. In terms of reimbursement, AYA expects NHS clinical commission groups to implement Salix and pay via a bundled or unbundled HRG (healthcare resource group) codes or a block contract (with AYA seeking an unbundled tariff due to more favourable payment terms).

## Australia & New Zealand

Having already gained TGA Class 1 registration in Nov-20, Australian SCA commercialisation began in Oct-21 with its first pilot program at Envision Medical Imaging in WA. AYA has 4 active Australian pilots and >36 prospective pilots in the pipeline. Management expects commercial usage and revenue to commence in FY23, along with installed base expansion and initial SCF pilots (1H23). We expect AYA to continue targeting tier 1 radiology groups in Australia (e.g. I-MED, Sonic Healthcare, Integral Diagnostics) for pilot/revenue agreements to drive product awareness and more rapid installed base growth.

We also note that SCA received NZ Medsafe registration in Jul-22. This will now allow the company to commercialise the product in the New Zealand market.





Source: Medicare, Company data, MST

## **Canada and RoW**

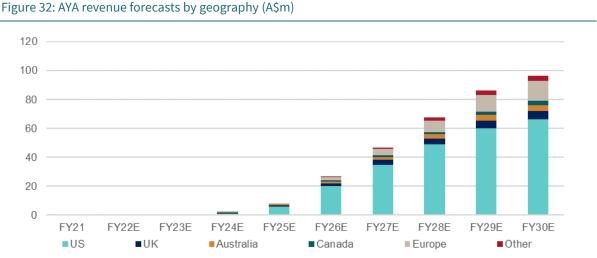
With AYA's FDA approval pushing out, we expect management to reprioritise and seek Canadian market entry near-term. In Sep-21, AYA submitted an application to Health Canada for MDSAP certification with approval expected in CY22. We note that Canadian commercialisation is likely to be aided by AYA's significant research collaboration with the University of Ottawa Heart and the reputation/profile of Dr Benjamin Chow (AYA Clinical Advisory Board Member).



In terms of other geographies, AYA has highlighted the EU4 (Germany, Spain, France & Italy) along with New Zealand as logical next steps beyond core markets. We note that AYA passed CE Mark audits in Mar-22 and Jun-22, with approval expected to come in FY23.

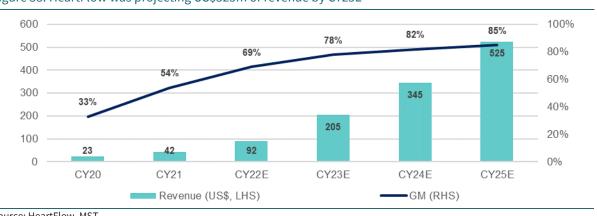
## **Revenue forecasts**

We expect AYA to begin generating revenue in 1H23, initially via deals with key pilot groups in Australia. We forecast A\$0.2m of Australian revenue in FY23E, increasing to A\$1.4m by FY26E and growing at a 24% CAGR for the following 5yr period (sense checked against a 121k CCTA market size growing at 15-20% per annum). After Australia (already approved), we expect AYA to launch in the UK (1H24) leveraging its NHS SBS deal framework. We forecast A\$0.4m of UK revenue in FY24E, increasing to A\$2.0m in FY26E and increasing at a 26% CAGR for the following 5 years.



Source: Company data, MST

We assume US revenues commence in 2H24 (implying FDA clearance achieved in the next 12-18 months), scaling rapidly to reach A\$20m in FY26E. From here we forecast a 30% 5 year CAGR, driving A\$66m of US revenue by FY30E. We also assume Canada revenues from FY24E, Europe from FY25E and other (e.g. Japan, NZ) from FY26E. By FY30E, the US represents 68% of our forecasted group revenue, highlighting the materiality of this market to AYA's future growth. Our growth assumptions are contingent on regulatory approval and underpinned by: 1) AYA's capital light and low-cost business model; 2) its significant and highgrowth market opportunity; and, 3) the ability for AYA scale rapidly through value-based care contracts with IDNs and ACOs. As a sense-check, we compare our US forecasts vs those presented by HeartFlow (key higher-cost competitor) at the time of its proposed SPAC merger in Jul-21 (deal subsequently terminated in Feb-22 due to market conditions):





Source: HeartFlow, MST



# 3. Attractive longer-term unit economics

The Salix Suite is a cloud-based, SaaS platform that is available 24/7, operates with existing clinical hardware and is ready for use wherever internet connections are available. SCA and SCF are centrally hosted on AWS (cloud platform, in-country sovereign data hosting) and licensed to providers through a subscription or pay-go agreement. This model eliminates the need for on-site hardware installations (capex) and implementation services (opex), ultimately improving returns for both providers and AYA. It also gives AYA significant speed-to-revenue advantages and the ability to push new products / updates out remotely.

AYA's business model is capital light and highly scalable. Longer-term we see a pathway to robust unit economics and FCF generation (as we have seen with other successful Australian SaaS businesses).

## **Revenue model**

AYA's revenue model is underpinned by four key payment structures:

- **Freemium** AYA plans to de-risk customer acceptance of the Salix Suite by offering a 30-day Freemium period in which users can trial the software at no charge (with restricted functionality);
- Pay-Go The Pay-Go licence will be charged on a per-scan basis, providing users with a low-fee, variable-cost pricing option that is scalable over time (customers can switch to subscription at any point);
- **Subscription** The subscription model will offer customers a repeatable and predictable fixed-cost option, charged monthly. Twelve-month subscription pricing is stepped, based on the monthly number of scans being processed by the practice;
- **Value**-based contracting As noted earlier, AYA is pursuing the opportunity of working with US payers through Value-based contracts, in which insurers are financially incentivised to lower cost of care and improve patient outcomes; and
- **Licensing** Longer-term, AYA has the opportunity to license its software to OEMs / other third parties for integration into their hardware / service offerings.

We would expect larger hospital contracts (like Huntsville) to adopt a subscription model (i.e. per seat or per facility) while smaller imaging groups are likely to opt for Pay-Go initially. Pricing for AYA's key competitors (i.e. Cleerly, HeartFlow) currently sits at US\$700-1,200 per episode, highlighting the significant headroom AYA will have longer-term (after it has built out its installed base). AYA can position itself as the lower-cost player due to its lower variable cost structure vs peers (computing infrastructure, analyst intervention).

## Assessing longer-term unit economics

Given the business fundamentals discussed above, we see AYA approaching P&L benchmarks of other global/ANZ SaaS businesses over the longer-term (as its scales its revenue) and deliver significant operating leverage.

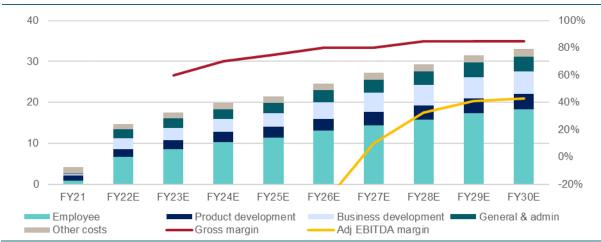
Company	Pro Medicus	Хего	WiseTech Global		ReadyTech Holdings	FINEOS Corporation	ELMO Software	Nitro Software	Average
Ticker	PME	XRO	WTC	HSN	RDY	FCL	ELO	NTO	
Sector	Diagnostic Imaging	Accounting	Logistics	Telco & Energy	Education & Workforce	Insurance	Human Resources	Productivity	
CoS	1%	13%	15%	7%	6%	35%	15%	8%	13%
Gross profit	99%	87%	85%	93%	94%	65%	85%	92%	88%
SG&A	36%	50%	21%	62%	75%	41%	65%	81%	52%
R&D (inc capitalised)	30%	43%	30%	0270	7.5%	33%	44%	27%	35%
Adj EBITDA	63%	-6%	34%	31%	19%	-9%	-24%	-16%	12%

Figure 34: Benchmarking ASX SaaS businesses – P&L as a % of revenue



Key cost ratios and margins are presented below:

- **Gross margin** We expect AYA's medium-term gross margin to sit between 70-80% before lifting to 85% over the longer-term (consistent with comps presented in Figure 34) as its revenues grow vs product costs (AWS hosting, etc);
- **SG&A** Given the early-stage nature of the business and the size of its TAM, we would expect to see material SG&A growth as the business scales (limiting cost fractionalisation near-term). As a % of sales long-term, we believe AYA's SG&A could approach 20-30% once revenues have scaled (A\$50m+);
- **R&D (inc capitalised)** We expect R&D costs for its core products (i.e. SCA) to be relatively incremental post launch, with AYA incorporating clinician feedback, updated AI/functionality through remote upgrades. More significant R&D costs / resources are likely to be attached to new product development (i.e. SCF, SPP, SVP) which are set to remain elevated near-term as these modules are rolled out. Longer-term we expect R&D costs could approach 10-20% of revenue; and
- **EBITDA margin** On this basis we forecast AYA to deliver significant operating leverage as it scales its installed base and revenues. We assume run-rate EBITDA break-even occurs in FY27E, with a 10% Adj EBITDA margin (inc cap R&D) generated in FY27E increasing to 43% by FY30E. This is clearly tied to a significant list of assumptions (regulatory approvals, customer wins, clinical adoption) and we do not expect this to be achieved near-term.



#### Figure 35: AYA's forecast cost base (\$m) and margin profile

# 4. Financials

# **Profit and loss**

Following the previous discussion on AYA's unit economics, below we present our medium-term P&L forecasts. We assume rapid global installed base and revenue growth from FY24E (US weighted), driving significant opex fractionalisation:

#### Figure 36: Forecast P&L performance

AYA P&L (A\$m)	FY21	FY22E	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Salix revenue	0.0	0.0	0.2	1.9	8.3	26.5	47.0	67.6	86.1	96.5
Total group revenue	0.2	1.0	1.1	2.8	9.3	27.5	48.0	68.6	87.1	97.4
Cost of sales	0.0	0.0	-0.4	-0.8	-2.3	-5.5	-9.6	-10.3	-13.1	-14.6
Gross profit	0.2	1.0	0.7	2.0	7.0	22.0	38.4	58.3	74.0	82.8
Operating expenses	-4.2	-14.8	-17.6	-19.9	-21.5	-24.6	-27.2	-29.3	-31.5	-33.1
EBITDA	-4.0	-13.8	-16.9	-17.9	-14.5	-2.7	11.1	29.0	42.5	49.8
D&A	0.0	0.0	-0.1	-0.2	-2.1	-2.6	-3.1	-3.5	-4.0	-4.4
EBIT	-4.1	-13.8	-17.1	-18.1	-16.6	-5.3	8.0	25.5	38.5	45.4
Net interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PBT	-4.1	-13.8	-17.1	-18.1	-16.6	-5.3	8.0	25.5	38.5	45.4
Тах	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-7.6	-11.6	-13.6
NPAT	-4.1	-13.8	-17.1	-18.1	-16.6	-5.3	5.6	17.8	27.0	31.8
Key performance metrics										
Revenue growth		358%	16%	153%	230%	196%	75%	43%	27%	12%
GP growth		358%	-31%	195%	254%	215%	75%	52%	27%	12%
Opex growth		249%	19%	13%	8%	15%	11%	8%	8%	5%
EBITDA growth								161%	47%	17%
Gross margin	100%	100%	60%	70%	75%	80%	80%	85%	85%	85%
Opex % of sales	2012%	1535%	1585%	707%	231%	90%	57%	43%	36%	34%
EBITDA margin	-1912%	-1435%	-1525%	-637%	-156%	-10%	23%	42%	49%	51%
Adj EBITDA	-6.1	-18.4	-21.7	-23.1	-20.3	-9.4	4.7	22.2	35.6	42.0
Adj EBITDA margin	-2895%	-1916%	-1953%	-823%	-218%	-34%	10%	32%	41%	43%

Source: Company data, MST

# **Cash flow statement**

#### Figure 37: AYA cash flow statement summary

AYA cash flow statement (A\$m)	FY21	FY22E	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Operating cash flows										
Receipts from customers / other	0.0	0.9	1.1	2.8	9.3	27.5	48.0	68.6	87.1	97.4
Payments to suppliers & employees	-2.0	-13.0	-18.1	-20.7	-23.8	-30.2	-36.9	-39.6	-44.6	-47.7
Income tax paid	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-7.6	-11.6	-13.6
Other operating cash flows	0.7	1.5	0.5	0.6	0.0	-0.8	-1.9	-0.6	1.4	-0.5
Net operating cash flows	-1.3	-10.6	-16.5	-17.3	-14.5	-3.5	6.8	20.7	32.3	35.6
Investing cash flows										
Capex (R&D & PP&E)	-2.1	-4.6	-4.8	-5.2	-5.8	-6.7	-6.4	-6.8	-6.9	-7.7
Other investing cash flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net investing cash flows	-2.1	-4.6	-4.8	-5.2	-5.8	-6.7	-6.4	-6.8	-6.9	-7.7
Financing cash flows										
Proceeds from issues of shares	14.1	40.0	0.0	46.9	0.0	0.0	0.0	0.0	0.0	0.0
Net proceeds from borrowings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Payment of dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other financing cash flows	0.0	-2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net financing cash flows	14.1	37.8	0.0	46.9	0.0	0.0	0.0	0.0	0.0	0.0
Net cash flow	10.8	22.6	-21.3	24.3	-20.3	-10.2	0.4	14.0	25.4	27.9
Closing cash balance	13.0	35.6	14.3	38.6	18.3	8.1	8.5	22.5	47.8	75.7
Free cash flow	-3.4	-15.3	-21.3	-22.6	-20.3	-10.2	0.4	14.0	25.4	27.9



Above we present our cash flow statement forecasts for AYA. We forecast FCF break-even in FY27E, with outflows peaking at -\$23m in FY24E. Based on our base case forecasts, we assume an equity raise in 1H24E for \$47m (70m shares at the current price of \$0.67) to see the business through to break-even / self-funding.

Below we present the trajectory of quarterly cash flows, highlighting the recent growth in staff and product costs as AYA builds its global team / platform ahead of first revenue in FY23E:



Figure 38: AYA quarterly cash flows

Source: Company data, MST

## **Balance sheet**

Below we present our balance sheet forecasts for AYA:

Figure 39: AYA balance sheet summary

										-
AYA balance sheet (A\$m)	FY21	FY22E	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Cash	13.0	35.6	14.3	38.6	18.3	8.1	8.5	22.5	47.8	75.7
Trade & other receivables	1.4	2.5	2.5	2.5	2.9	4.3	6.8	7.9	7.1	8.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total current assets	14.4	38.1	16.8	41.2	21.3	12.4	15.4	30.4	55.0	83.7
Property, plant & equipment	0.1	0.4	0.9	1.3	1.9	2.4	2.9	3.5	4.0	4.5
Intangible assets	0.5	3.8	8.0	12.5	15.7	19.2	22.0	24.7	27.1	29.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total non-current assets	0.7	4.2	8.9	13.9	17.5	21.7	25.0	28.2	31.1	34.4
Total assets	15.1	42.3	25.7	55.0	38.8	34.1	40.3	58.6	86.1	118.2
Trade & other payables	1.0	2.6	3.1	3.6	4.0	4.5	5.2	5.6	6.1	6.4
Interest-bearing liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total current liabilities	1.2	2.9	3.4	3.9	4.3	4.8	5.5	5.9	6.4	6.7
Interest-bearing liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total non-current liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total liabilities	1.2	2.9	3.4	3.9	4.3	4.9	5.5	5.9	6.4	6.7
Net assets	13.9	39.4	22.3	51.1	34.5	29.2	34.9	52.7	79.7	111.4
Contributed equity	18.1	55.9	55.9	102.8	102.8	102.8	102.8	102.8	102.8	102.8
Reserves	1.4	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Retained earnings	-5.6	-19.4	-36.5	-54.6	-71.2	-76.5	-70.8	-53.0	-26.0	5.7
Total equity	13.9	39.4	22.3	51.1	34.5	29.2	34.9	52.7	79.7	111.4



# 5. Valuation

**We value AYA at \$1.44ps** (\$113m equity value) utilising a discounted cash flow (DCF) valuation methodology which we cross-check / validate against peer transaction and trading multiples.

# **Discounted cash flow methodology**

Given the early-stage nature of AYA and the timeline to FCF break-even (MSTe base case FY27E), we have adopted the NYU Stern School of Business approach (Aswath Damodaran) to expected dilution in our DCF. This approach notes that: 1) many young companies lose money, as they focus their attention on building businesses and acquiring customers; and, 2) growth requires reinvestment in technology / R&D. As a consequence, you can expect to see negative forecasted cash flows in the earlier years of the DCF. To make it to positive earnings / cash flows, the company will potentially have to raise fresh equity capital, driving dilution and affecting value per share. There are two responses to this when using a DCF:

AYA DCF	Units		FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E	FY32E
EBITDA	A\$m		-17	-18	-15	-3	11	29	43	50	56	63
Тах	A\$m		0	0	0	0	-2	-8	-12	-14	-15	-17
Change in working capital	A\$m		0	1	0	-1	-2	-1	1	-1	0	0
Operating cash flows	A\$m		-17	-17	-15	-4	7	21	32	36	40	45
Сарех	A\$m		-5	-5	-6	-7	-6	-7	-7	-8	-8	-9
Free cash flow	A\$m		-21	-23	-20	-10	0	14	25	28	32	36
Discount factor			0.89	0.78	0.68	0.60	0.52	0.46	0.40	0.35	0.31	0.27
PV cash flows	A\$m		-19	-18	-14	-6	0	6	10	10	10	10
Total PV cash flows	A\$m	-11		Key As:	sumptic	ns						
Terminal value	A\$m	88		Tax rate			30%	Debt Pr	emium		1.5%	
Total Value	A\$m	77		Risk free	e rate		3.0%	Cost of	Debt		4.5%	
Net debt	A\$m	-36		Beta			1.9	Target g	gearing		10%	
Equity value	A\$m	113		Market F	Risk Pre	mium	6.5%	WACC			<b>14.2%</b>	
SOI	m	78		Cost of	Equity		15.4%	Termina	l growth	rate	3.0%	
Value / share	A\$m	1.44										

Figure 40: Option 1 - We value AYA at A\$1.44ps using a DCF methodology

Source: Company data, MST

• **Option 1** – The right response to expected dilution in a DCF is to do nothing (Figure 40). The aggregate value of equity computed today includes the PV of expect cash flows, including the negative cash flows in upfront years. The latter reduces the present value of operating assets capturing the dilution effect. This method implies that the firm will fund its capital requirements via debt and equity (consistent with the gearing ratio assumed in our WACC) and that shares will be issued at intrinsic value; and

Figure 41: Option 2 assumes 70m shares issued at the current share price – lowers valuation to \$1.14ps

AYA DCF	Units		FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E	FY32E
EBITDA	A\$m		0	0	0	0	11	29	43	50	56	63
Tax	A\$m		0	0	0	0	-2	-8	-12	-14	-15	-17
Change in working capital	A\$m		0	0	0	0	-2	-1	1	-1	0	0
Operating cash flows	A\$m		0	0	0	0	7	21	32	36	40	45
Сарех	A\$m		0	0	0	0	-6	-7	-7	-8	-8	-9
Free cash flow	A\$m		0	0	0	0	0	14	25	28	32	36
Discount factor			0.00	0.00	0.00	0.00	0.52	0.46	0.40	0.35	0.31	0.27
PV cash flows	A\$m		0	0	0	0	0	6	10	10	10	10
Total PV cash flows	A\$m	46		Key Ass	sumptio	ns						
Terminal value	A\$m	88		Tax rate			30%	Debt Pr	emium		1.5%	
Total Value	A\$m	134		Risk free	e rate		3.0%	Cost of	Debt		4.5%	
Net debt	A\$m	-36		Beta			1.9	Target g	earing		10%	
Equity value	A\$m	169		Market F	Risk Pren	nium	6.5%	WACC			14.2%	
SOI	m	148		Cost of	Equity		15.4%	Termina	l growth	rate	3.0%	
Value / share	A\$m	1.14										



• **Option 2** – An alternative approach is to forecast the number of shares that will be issued in future years to cover the negative cash flows and use this as your current shares on issue. Under this approach we set the cash flows during the negative cash flow period to zero.

This drives a lower valuation vs option 1 as we assume the required equity (70m shares) is issued at \$0.67ps (current price) vs intrinsic value. We have adopted option 1 as our core valuation methodology (preferred option in the literature).

Our core DCF methodology is underpinned by the following key assumptions:

Figure 42: Competitor HeartFlow sees a ~US\$50b TAM longer-term

Revenue growth – We forecast rapid Salix revenue growth (FY24-30E) as AYA achieves regulatory approvals and expands its installed base. We have sense-checked our terminal year revenue forecast (FY32E \$116m) vs our TAM assumptions detailed earlier. We calculated an initial opportunity of A\$0.8-1.2b based on assumed market entry pricing. With CCTAs forecast to grow at 10-15% pa, we conservatively believe AYA's TAM could reach \$3.0b+ by FY32E with our forecasts implying <4% penetration (before accounting for new products beyond SCA & SCF, any higher pricing, etc). Furthermore, competitor HeartFlow has pegged its long-run TAM at US\$50b, again highlighting the huge upside on offer to AYA longer-term;</li>

Today	Near Term	Medium Term	Long Term
Symptomatic			HeartFlow Risk Assessmen \$24.0B
Asymptomatic / Preventative		Access Risk Assessment market broadly, driving asymptomatic — FFR <sub>c1</sub> and Plaque uptake	Plaque Fee Per Analysis \$5.1B
		Princt and haque uplake	FFR <sub>cT</sub> Fee Per Analysis \$2.7B
	Migration of Plaque to Fee Per Analysis	Plaque Fee Per Analysis \$7.1B	
Launch of subscription-based Hea revenue model in late 2022	rt Care Product Suite (incl. Plaque) \$0.7B		
FFR <sub>CT</sub> Fee Per Analysis \$10.1B			
Total: \$10.1B	Total: \$10.8B	Total: \$17.9B	Total: \$49.7B

Source: HeartFlow

- **Gross margin** We forecast a long-run GM of 85% with upside risk if AYA can scale its installed base beyond our estimates and drive operating leverage vs product costs (predominantly AWS hosting);
- **EBITDA** As previously discussed, we forecast EBITDA break-even in FY27E with a long-run margin of 43-45% (adjusted for capitalised R&D);
- **Cost of equity** We use a 15.4% CoE underpinned by a RFR of 3%, a beta of 1.9 and an MRP of 6.5%. The beta estimate of 1.9 is in-line with AYA's 90-day observed average and captures the significant uncertainty / risks associated with regulatory approvals and product commercialisation across key markets;
- **WACC** We use a 14.2% WACC underpinned by our CoE assumptions and a targeted gearing ratio of 10% (noting this is a long-term target to drive balance sheet efficiency once AYA can support it); and
- **Terminal growth** –We assume a 3.0% TGR, reflecting AYA's significant total addressable market and long-run growth prospects.

## **Peer trading multiples**

Below we assess AYA's current valuation vs the trading multiples of global peers (split into Disruptive Tools & Specialty Dx, High Growth Medtech and SaaS/Software). We focus on forecast year 3 (i.e. ~FY25E MSTe AYA revenue of \$8.3m) and EV/sales multiples given the nature of AYA's business and the peer set.



#### Figure 43: Assessing AYA vs global peers

Comp	Ticker	FY3 EV/sales	FY0-3 sales CAGR	FY3 gross margin
Disruptive Tools & Specialty Dx				
10x Genomics	TXG.US	4.4	26%	76%
Adaptive Biotechnologies	ADPT.US	4.6	24%	71%
Guardant Health	GH.US	7.5	28%	68%
Olink	OLK.US	6.7	43%	72%
Volpara Health Technologies	VHT.AX	3.2	26%	81%
Mean		5.3	30%	74%
Median		4.6	26%	<b>72</b> %
High Growth MedTech				
Butterfly Network	BFLY.US	6.8	34%	65%
Inari Medical	NARI.US	8.0	23%	87%
Inspire Medical Systems	INSP.US	9.6	38%	86%
Pro Medicus	PME.AX	41.2	26%	97%
Pulmonx	LUNG.US	6.2	29%	78%
Shockwave Medical	SWAV.US	11.1	46%	88%
Silk Road Medical	SILK.US	7.9	27%	76%
Mean		13.0	32%	82%
Median		8.0	<b>29%</b>	86%
SaaS / Software				
Adobe	ADBE.US	9.0	13%	89%
Atlassian	TEAM.US	11.3	29%	83%
Datadog	DDOG.US	11.6	45%	81%
DocuSign	DOCU.US	4.6	14%	79%
Veeva Systems	VEEV.AX	11.4	17%	74%
WiseTech Global	WTC.AX	18.4	22%	88%
Xero	XRO.AX	7.8	22%	87%
Zoom Video Communications	ZM.US	5.1	12%	75%
Mean		9.9	22%	82%
Median		10.1	20%	<b>82</b> %
All mean		9.8	27%	80%
All median		7.9	<b>26</b> %	80%
Artrya	AYA.AX	2.0	113%	75%

Source: FactSet, MST

At \$0.67ps (implied market cap \$52m) and with \$36m of cash on hand, AYA is currently trading at an EV of \$16m. This represents 2.0x our FY25E sales forecast, well below the forward multiples (FY3) of the peer-set above. Taking a 5x multiple (referencing the Specialty Dx peer set), AYA's implied EV would be \$42m and equity value would be \$78m (equating to \$1.00ps, +49% vs current levels). At an 8x multiple (referencing the entire peer set median), AYA's implied EV would be \$67m and equity value would be \$103m (equating to \$1.32ps, +97% vs current levels).

#### Peer transaction multiples - Digging into HeartFlow

The most significant unlisted peer to AYA (for which there is transaction data available) is HeartFlow. The HeartFlow product suite is similar to the Salix Suite, noting that its most established product is for FFR<sub>CT</sub> (SCF comp) with coronary anatomy / plaque assessment still under development.

In CY21, HeartFlow generated US\$36-42m of revenue having achieved FDA clearance for its 1<sup>st</sup> generation product 7-8 years ago. At the end of CY21, HeartFlow had ~US\$50m of cash on hand with a quarterly burn of ~US\$15m (having raised US\$543m in funding to date).



In Jul-21, HeartFlow entered into a merger agreement with SPAC Longview Acquisition Corp II, **coming to market at a proposed EV of US\$2.4b representing 11.6x FY23E sales and 4.5x FY25E sales** (HeartFlow was forecasting a 4yr sales CAGR of 88%). While the deal was subsequently terminated in Feb-22 due to adverse market conditions, we note that **HeartFlow's Series E – II funding round valued the business at US\$1.5b (~38x FY21 sales).** These transaction multiples compare favourably vs AYA and further support the implied FY25E EV/sales of our valuation (at ~9x).

# 6. Key risks

Key risks to our investment thesis for AYA include:

- **Market conditions** To meet our revenue forecasts, AYA's sales and marketing activities must generate new research agreement/contract wins. If the investment environment for hospitals/imaging groups is impacted by macro factors (economic activity, COVID-19, etc) then this could negatively impact AYA's ability to drive software revenue growth (offset by the fact that provider capex requirements are minimal);
- **Competition** AYA operates in a competitive industry. Competitors could impact AYA's market share gains via marketing campaigns, product research and development, strategic alliances with industry bodies, favourable distribution partnerships, price discounting or acquisitions. We also note that existing or new competitors may develop new products (or improve existing products), which may improve their competitive positioning relative to AYA;
- **Product development and approval** AYA's product candidates are at a relatively early clinical stage and further clinical study using varied patient populations and larger sample sizes is necessary. No guarantee can be provided that the proposed clinical work will be successful or result in an approved product in key jurisdictions;
- **Customers** The success of AYA's business relies on its ability to attract new customers. AYA generates revenue through customers utilising Salix and being charged via Pay-Go or a subscription fee. AYA cannot guarantee that future customers will not terminate their current service offering at the end of their initial contract term or any subsequent term. There is a risk that future customers may reduce or cease usage of AYA's services or that they may not increase their usage, which would result in a reduction, or limited growth, in AYA revenues;
- **Future profitability** AYA is still in the early sales and commercialisation stage for Salix. To date, it has funded its operations principally through issuing securities, seeking research and development tax refunds and by applying for grants. AYA is not yet profitable and has historically incurred losses. There is no guarantee that AYA will be able to grow its product sales in any jurisdiction. There is no guarantee that AYA will be successful in obtaining FDA clearance for its products, nor is there any guarantee that regulatory approvals will be obtained in other target jurisdictions such as Canada, the UK and the EU. Regulatory approvals and market adoption of AYA's products remain crucial for long-term revenue generation and future profitability;
- **Future funding requirements** In the future, AYA may need to raise capital through public or private markets to meet its business objectives. There is a risk that such funding is not available on favourable terms, or at all, which could negatively impact AYA's business / growth ambitions;
- **Pricing** –AYA's customers may try to renegotiate contract terms for more favourable pricing, which would result in a direct reduction in revenue generated. To stay competitive AYA may need to adjust pricing models in response to customer behaviour, including changes in demand for different products, contract terms or changes in customer preferences in terms of how they choose to interact with AYA;
- **Key personnel** The recruitment and retention of key personnel including senior management is critical to AYA's success. Any unexpected departures would present increased strategic and operational execution risks and would likely result in negative share price action for AYA; and



- **Foreign exchange** Revenue generated and expenditure incurred overseas will be subject to foreign exchange risk. AYA's payment obligations under some of its material contracts are in foreign currencies. AYA does not plan at this stage to hedge its foreign currency payments;
- **Reimbursement** In both domestic and foreign markets, sales of AYA's products are likely to depend in part upon the availability and amounts of reimbursement from third-party healthcare payer organisations, including government agencies, private healthcare insurers and other payers;
- **Technology** AYA and its customers are dependent on the performance, reliability and availability of the company's technology, third-party data centres and communications systems. There is a risk that these systems may fail or be adversely impacted by several factors, some of which may be outside of AYA's control. Any adverse events could negatively impact AYA's reputation, business and financial performance; and
- Intellectual property AYA's success (to a large extent), will depend on its ability to obtain patents, as well as maintain both trade secrets and copyright protection over its proprietary software and algorithms (see current patent applications in Figure 44). It will also depend on its ability to operate without infringing the proprietary rights of third parties. AYA's patent applications are still pending. Examination of patent applications may be expensive and time-consuming, with no guarantee that lodged patent applications will result in granted patents. It may also take longer than expected for patents to be granted and, even if granted, the claims of any patents that are granted may not provide meaningful protection. Additional patent applications may need to be filed to provide more comprehensive protection. No assurance is given that AYA's current and future patent applications collectively will fully protect all aspects of its product portfolio. If patents are not granted, or if granted only for limited claims, then the value of AYA's IP may be significantly diminished, and its IP may be able to be copied or reproduced or otherwise circumvented by third parties, such that AYA may not be able to achieve its objectives, commercialise its products, or generate revenue or other returns.



#### Figure 44: AYA's patent applications and trademark portfolio

#### PATENT FAMILY 1

#### A METHOD OF AND SYSTEM FOR CALCIUM SCORING OF CORONARY ARTERIES

Patent Application No.	Туре	Country	Status	Filing Date
2020900593	Provisional	Australia	Lapsed (provides right of priority for PCT/AU2021/050168)	28 February 2020
2020902072	Provisional	Australia	Lapsed (provides right of priority for PCT/AU2021/050168)	22 June 2020
2020902398	Provisional	Australia	Lapsed (provides right of priority for PCT/AU2021/050168)	10 July 2020
PCT/AU2021/050168	PCT	International	Pending	26 February 2021

#### PATENT FAMILY 2

#### A SYSTEM FOR AND METHOD OF IDENFIYING CORONARY ARTERY DISEASE

Patent Application No.	Туре	Country	Status	Filing Date
2021901188	Provisional	Australia	Filed	28 February 2020
2021221667	Complete	Australia	Pending	25 August 2021

#### PATENT FAMILY 3

A CORONARY ARTERY DISEASE ANALYSIS TOOL

Patent Application No.	Туре	Country	Status	Filing Date
2021902323	Provisional	Australia	Filed	28 July 2021
2021221669	Complete	Australia	Pending	25 August 2021

#### TRADE MARKS

Trade Mark No.	Trade Mark	Country	Status	Filing Date
2154194	ARTRYA	Australia	Registered	9 February 2021
2179094	ARTRA	Australia	Under Examination	9 February 2021
2130762	SALIX	Australia	Registered	2 November 2020
1615875	ARTRYA	International	Registered	11 August 2021

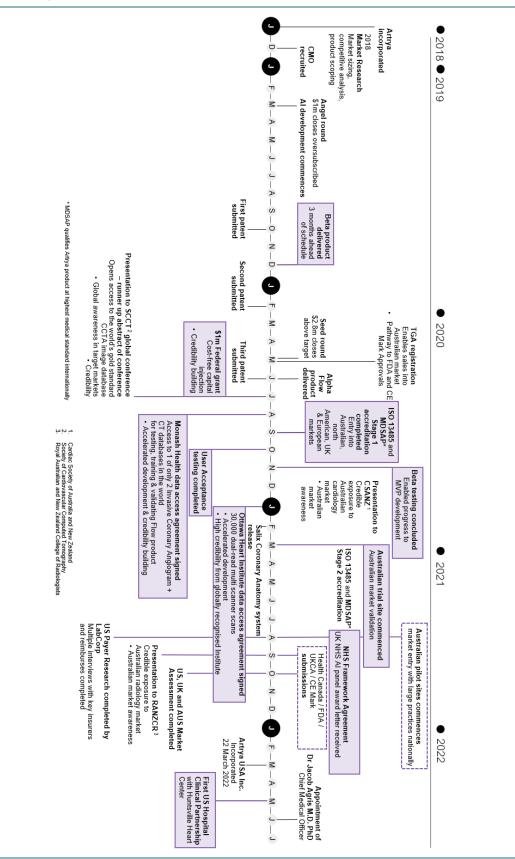
Source: Griffith Hack, AYA

In addition to the patents schedule presented above, AYA filed PCT/AU2022/050365 (patent family 2, international) in Apr-22 and PCT/AU2022/050727 (patent family 3, international) in Jul-22. These filings provide the opportunity to file national/regional applications at any time up to Oct-23 and Jan-24 respectively.



# Appendix 1 – Corporate timeline & product pipeline detail

Figure 45: AYA corporate timeline

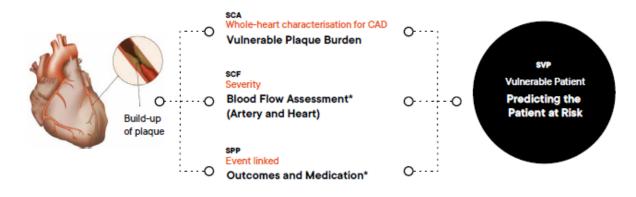


Source: AYA



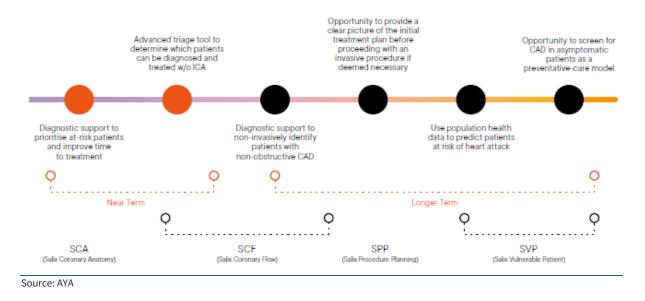
#### Figure 46: AYA product pipeline – Overlaying SCF, SPP and SVP

Artrya's product pipeline moves us towards predicting the patient at risk



\* In development

#### Penetration of coronary artery disease diagnostic support market



# Appendix 2 - Board

- **Bernard (Bernie) Ridgeway, Non-Executive Chair** Bernie has over 37 years of experience in both private and ASX-listed companies. Previously, Bernie was the Managing director of ASX300-listed company Imdex, until he retired in Jul-20. Bernie holds a Bachelor of Business in Accounting, is a qualified chartered accountant, and is a Fellow of the Australian Institute of Company Directors;
- John Barrington AM, Managing Director & CEO John brings more than 30 years experience to his role as Artrya's co-founder and Managing Director. John holds a Bachelor of Business, MBA, and is a Fellow of the Australian Institute of Company Directors and Life Fellow of the Australian Institute of Management WA;
- John Konstantopoulos, Executive Director (Product) John is the co-founder of Artrya and leads the clinical and commercial development of Artrya's Salix suite of products. He also currently serves on the Faculty Advisory Council for Engineering and Science at Curtin University. John holds a degree in engineering from University of Technology, Pretoria and an IBM Certification in Management Consulting; and



• **Dr Jacque Sokolov, Non-Executive Director** – Dr Sokolov is a senior cardiologist and advisor to over 100 healthcare organisations. He is a Director at Calviri (mRNA diagnostics) and a Director at Lucid Diagnostics (DNA diagnostics), having previously been the Chairman of the White House Health Project (Exec Committee) and on the Board of The American College of Medical Quality.

# Appendix 3 – Senior Management

- John Barrington AM, Managing Director;
- John Konstantopoulos, Executive Director (Product);
- Mark Wainwright, Chief Financial Officer Mark is AYA's CFO and is an experienced online business builder and chartered accountant. Mark co-founded, led and grew two cutting-edge online businesses and has broad experience across all aspects of establishing and growing start-ups in the tech sector;
- **Dr Julien Flack, Chief Technology Officer** Julien brings over three decades of experience in software engineering and technology. Julien founded technology consultancy firm Asmovian and prior to that was the CTO at Dynamic Digital Depth. Julien holds a Bachelor of Science (Hons) from Leeds University and PhD from Curtin University, both in computer science;
- **Professor Girish Dwivedi, Chief Scientific Officer** Girish is the inaugural Wesfarmers Chair in Cardiology at the University of Western Australia and Consultant Cardiologist at Fiona Stanley Hospital in Western Australia. Previously, he was a Clinician Scientist (Canadian Institute of Health Research New Investigator) and Consultant Cardiologist at the University of Ottawa Heart Institute in Canada. As an international researcher trained over three continents, he has collaborated with world-leading researchers and clinicians, securing grants, driving sophisticated imaging findings, and developing new methods to assess cardiovascular risk for the research community. He has a PhD in non-invasive cardiac imaging with the University of Manchester (UK) and has had more than 180 articles accepted or published in noteworthy publications, including the American Journal of Cardiology and the International Journal of Cardiology;
- Janice Marcon, Chief People and Culture Officer Janice leads People and Culture at Artrya, having previously been Executive Director of Human Resources at Argonaut. Janice holds a Bachelor of Arts with a major in psychology from University of Western Australia and has completed postgraduate studies in Strategic Human Resources Management at the Australian Graduate School of Management. She is a Chartered Member of the Australian HR Institute, and a member of the Association of Change Management Professionals;
- Jessica Monk, Chief Marketing Officer Prior to becoming AYA's Chief of Marketing, Jessica was the Head of Product and Marketing at Johnson Controls and has previously worked in the Medtech sector at ResMed. Jessica holds an MBA from Edinburgh Business School and a Bachelor of Arts (Hons) in International Business Management with a focus on strategy.



# Appendix 4 – Share register

As of Nov-21 (i.e. the time of listing), the top 5 shareholders accounted for ~27% of the register (including the two founders):

#### Figure 47: AYA's top 5 shareholders represents ~27% of the register

Shareholder	Units	%
John Barrington	7,526,095	9.6%
Erika Konstantopoulos	7,000,000	8.9%
Accbell Nominees	2,269,604	2.9%
HSBC Custody Nominees	2,194,377	2.8%
Richcab (Dale McKenzie)	1,835,228	2.3%
Keeble Nominees (Bernie Ridgeway)	1,669,192	2.1%
Rubi Holdings (John Rubino)	1,656,818	2.1%
Sandhurst Trustees (Endeavor AM)	1,481,482	1.9%
Other	52,614,794	67.2%
Total shares on issue	78,247,590	100.0%

Source: Company data

We note that as at Dec-21, AYA had 15.2m options on issue at exercise prices between 0.1cps and 100cps:

# Figure 41: AYA had 15.2m options outstanding at Dec-21

Number of Options Outstanding	Exercise Price	Expiry Date
6,000,000 unlisted	0.1 cents	25 March 2024
405,000 unlisted	7.5 cents	10 January 2025
1,300,000 unlisted	5.6 cents	23 September 2028
220,000 unlisted	7.5 cents	27 November 2025
1,226,752 unlisted	7.5 cents	31 December 2025
500,000 unlisted	100 cents	23 April 2026
5,500,000 unlisted	100 cents	9 July 2026

Source: Company data

Subsequently, the following options (6.4m) and performance rights (1.2m) have been issued:

- Options expiring at \$1.35 on or before Jan-27 1,300,000
- Options expiring at \$3.00 on or before Jan-27 1,300,000
- Options expiring at \$5.00 on or before Jan-27 1,300,000
- Options expiring at \$1.35 on or before Mar-27 650,000
- Options expiring at \$3.00 on or before Mar-27 650,000
- Options expiring at \$5.00 on or before Mar-27 650,000
- Options expiring at \$1.50 on or before Jul-27 500,000
- Performance Rights expiring on or before Jul-27 1,207,834



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