

## Enabling better radiology and medical decisions

Singular Health Group (ASX:SHG) is the developer of 3DICOM™, a fully integrated solution that enables radiology data (specifically those in the DICOM format) to be accessed and shared across siloed healthcare systems.

### More optimal outcomes for all parties involved

At first glance, displaying 3D images may not seem innovative, but the key difference with 3DICOM™ is that files can be transmitted easily across disparate Picture Archiving and Communication Systems (PACS). The solution also uses blockchain for auditability and Artificial Intelligence (AI) integration to enhance diagnostics. The result is a plug and play solution that enables real interoperability by providing faster, safer, and more accurate value-based care across disconnected systems. This reduces the cost of duplicate imaging whilst enhancing decision-making for providers and patients and enabling better-value based care. From the perspective of the company and its investors, the business model is ideal as it is delivered through a SaaS model, generating recurring revenue.

### Significant inroads have been made, but the company is just getting started

3DICOM™ is now in a commercial pilot with a significant Managed Services Organisation (MSO) in the US – Provider Network Solutions (PNS). PNS manages the health plans for over 3.7m patients in Florida, Texas and Puerto Rico and the deal provides for 1,000 3DICOM™ Licenses to be deployed. Moreover, PNS became an investor in SHG when the Memorandum of Understanding (MoU) was signed last year. Adoption in this MSO can help speed uptake elsewhere and open up a multi-billion-dollar opportunity. The company thinks it has a total market opportunity of US\$19bn Annual Recurring Revenue.

### Valuation range of \$1.63-2.29 per share

We value SHG at \$1.63 per share (or \$493m) in our base case and at \$2.29 per share (or \$690.3m) in our optimistic (or bull case). We see potential for the company to re-rate as 3DICOM™ rolls out in the PNS network and the broader US market. Please see page 18 for more details on our valuation and page 21 for the key risks.

Share Price: A\$0.31

ASX: SHG

Sector: HealthCare

5 August 2025

Market cap. (A\$ m)	93.5
# shares outstanding (m)	301.7
# shares fully diluted (m)	413.9
Market cap ful. dil. (A\$ m)	128.3
Free float	100%
52-week high/low (A\$)	0.4 / 0.077
Avg. 12M daily volume ('000)	691.5
Website	<a href="https://singular.health">https://singular.health</a>

Source: Company, Pitt Street Research

### Share price (A\$) and avg. daily volume (k, r.h.s.)



Source: Refinitiv Eikon, Pitt Street Research

<b>Valuation metrics</b>	
DCF fair valuation range (A\$ per share)	\$1.63-2.29
WACC	14.5%
Assumed terminal growth rate	2%

Source: Pitt Street Research

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## The key reasons to look at Singular Health Group (ASX:SHG)

- 1) **Singular Health has a unique medical information sharing system with 3DICOM™.** 3DICOM™ allows standard radiology data from DICOM file to be shared across different siloed Picture Archiving and Communication Systems (PACS). It is a quicker, cheaper and safer method than the gold standard.
- 2) **3DICOM™ enables better medical outcomes.** This cuts out waste and improves efficiency because transmission is far more difficult nowadays – on some occasions, duplicate imaging is required just because of the inability to transmit images. The ability to transmit images eliminates the need for duplicates and enables faster decision-making. This, in turn, supports more accurate diagnoses, timely treatment interventions, and clearer communication between doctors and patients about their treatment options.
- 3) **There are many potential areas of application for 3DICOM™ beyond the initial field of radiology.** These include Orthodontics, Maxillo-facial, Prosthodontic, Neurosurgical, Oncology, Orthopaedics, General Medicine, Internal Medicine, Family Medicine, Paediatrics, and more. All of these medical fields use medical imaging and 3DICOM™ could be of benefit enabling more seamless imaging, communication and (thus) decision making.
- 4) **3DICOM™ is sold with a SaaS model** with a scalable online knowledge base. The products thus earn recurring revenue. Moreover, the business model is structured around MSOs and Health Plans paying for PCPs, specialists and healthcare facilities contracted with them.
- 5) **3DICOM™ has significant backing from regulators.** 3DICOM™ was FDA approved in October 2022 and the solution is also ISO 27001, HIPAA, SOC2 Type2 certified.
- 6) **Singular's relationship with PNS is a spectacular launching pad for success in the market.** SHG has a commercial contract with PNS that covers a network of healthcare providers with 3.7m member plans. The pair have US\$1.3m binding enterprise agreement for a pilot program for Singular to deploy 1,000 3DICOM MD™ licenses at US\$800 per license. Not only that, but PNS is an investor in the company.
- 7) **The market opportunity is highly lucrative.** SHG believes it has an opportunity of 1.3m physicians in the US and the average number of payer contracts is 19.2. With a licensing model of US\$800 per physician license, this would amount to \$18bn Annual Recurring Revenue per year. Even if SHG only captures a small share of the market (i.e., in the tens of thousands), it could still be a lucrative opportunity. And even its current opportunity with PNS covers a network of healthcare providers with 3.7m member plans.
- 8) **There is substantial potential for AI to improve SHG's technology.** AI can enhance the outcomes from SHG's technology from what they already are. For instance, it can automatically segment all body organs from CT and MRI scans, meaning the task is reduced from days to minutes. It has also developed an application integrating AI models with 3D images to enable faster diagnoses, deeper insights and more informed decision making as a consequence.
- 9) **SHG has a quality leadership team.** It remains led by Denning Chong who was involved in the development of the first iteration of the 3DICOM™



technology in 2017 and has presided over its regulatory approval and early commercialisation. Other members of the board and management possess extensive experience in high Tier health and/or technology companies, both listed and non-listed. We also observe SHG's management has significant stake in the game, owning 6% of the company between them thus aligning their interests with that of their fellow investors.

- 10) **SHG has a high-quality register of institutional investors.** Beyond SHG's management, other investors include its first US partner Provider Network Solutions (PNS) as well as crypto industry heavyweight Craig Sellars – the latter buying into the company after seeing the technology in practice for himself. These all demonstrate their confidence in the company.
- 11) **We believe SHG is undervalued at its current market value.** We acknowledge its re-rating over the last 12 months, but still believe there is significant room for further growth. We value the company at \$1.63 per share base case and \$2.29 per share optimistic case using a DCF approach, and this would by no means be the company's ceiling if past precedent of ASX MedTech and biotech companies expanding into the US market are any precedent.



## An overview of Singular Health (ASX:SHG)

### The company's beginnings

***3DICOM™ was invented by Perth-based oncologist Jason Tan who wanted to view an ovarian cancer tumour properly.***

Singular Health traces its origins to 2017 when the concept of what would become 3DICOM™ was invented by Perth-based oncologist Jason Tan. Dr Tan conceived the product when he was having difficulty in planning surgery for an ovarian cancer patient because he could not properly view the tumour as it had spread up the aorta and oesophagus and it was not possible to look inside and see where the gaps were to work out the best surgical approach. Dr Tan wanted to change this and thus created the company's first product, MedVR.

The first company to own the software was named after that software; the company was named MedVR Pty Ltd was incorporated in 2018. Singular Health would be founded in 2019 and it bought MedVR and its assets for \$230,000. MedVR rendered images from 2D to 3D formats and also allowed clinicians to use VR-headsets to 'fly through' a patient's anatomy. It enabled patients and practitioners to view it in a simple application. While Dr Tan's involvement with the company is in the capacity of a specialist industry expert consultant, current CEO Denning Chong became involved in the early days of the company, assisting with its early-stage funding and governance. He became CEO in April 2023 following some years as a Non-Executive Director.

### Singular's most important milestones

The company listed on the ASX in 2021 raising \$6m at \$0.20 per share, capitalising it at A\$30m, a fraction of the A\$98m it is capitalised at now. By the time of its IPO, MedVR was used in hospitals in some jurisdictions including Singapore, Brunei, South Africa, Hong Kong and Switzerland. It was also listed on the Australian Register of Therapeutics Goods and was a TGA IVD Medical Device Class I Software<sup>1</sup>. Nonetheless, it only generated modest revenue albeit in a handful of jurisdictions and the goal was always to enter the US market.

***The key moments for the company since listing have included 3Dicom™'s FDA approval and its deal with PNS.***

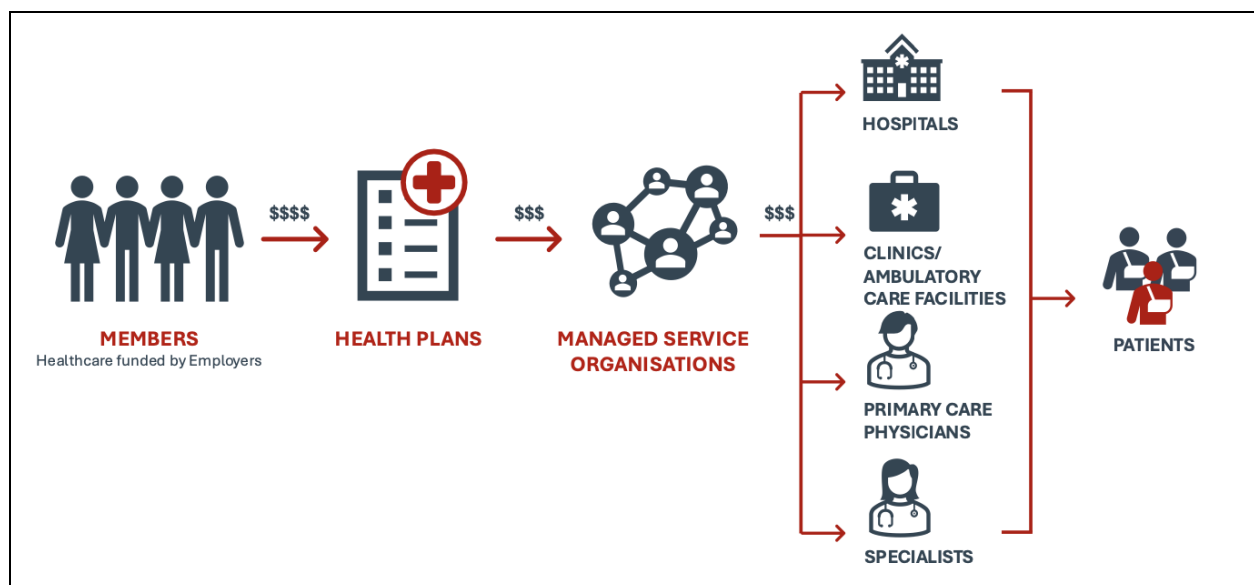
Since listing, the two key moments for Singular Health have been the FDA approval of 3DICOM™ in October 2022 and its deal with PNS which began in late 2024. The FDA gave its approval with more than 3 weeks to spare prior to the 90-day deadline where it would have to give a response – indicating the high-quality case that the submission put forward.

Singular has a focus on Health Plans and Managed Healthcare Service Organisations (MSOs) that will pay for 3DICOM™ and distribute it to physicians. The MSOs and Health Plans will pay annual license fees on their behalf to be able to save money on duplicate imaging by enabling interoperability between disconnected systems. MSOs and Health Plans have contracts with multiple hospitals and clinics, each of those may have different IT infrastructures, or PACS, that cannot share data (Figure 1).

<sup>1</sup> 2021 IPO prospectus, P.20



Figure 1: Where MSOs sit in the healthcare landscape



Source: Company

Consequently, SHG's alliance with PNS was a big deal, commencing with the signing of a non-binding MoU in November 2024 and proceeding to a binding contract worth A\$2m in June 2025. PNS has also become an investor in Singular, subscribing for shares in the company twice – in November 2024 upon the signature of the MoU and in Singular's June 2025 capital raising.

Having given an overview of SHG's history, we will now recap the company's 3DICOM™ technology.

## An overview of 3DICOM™

### Explanation of DICOM generally

**DICOM is the international standard for transmitting, storing, retrieving, printing, processing and displaying medical imaging information.**

First of all, it is necessary to outline what DICOM is. DICOM is the international standard for transmitting, storing, retrieving, printing, processing and displaying medical imaging information<sup>2</sup>. This file format was developed across the 1980s, and the DICOM format was formally presented by a joint committee of the American College of Radiology (ACR) and the National Association of Electronic Manufacturers (NEMA)<sup>3</sup>. At that time, it was revolutionary because it reduced the need for films to be printed to film to be interpreted to the radiologists. But now, images could be viewed and processed on a modality console. And in an era where CDs were a common technology, that was something in its favour rather than against it. It began for radiology but has evolved over the years to support other branches of imaging including dermatology, cardiology and ophthalmology. In 2023, there were ~80 modalities defined by the standard today.

Images in the DICOM format are stored with the file extension “. dcm.” They cannot be opened on an ordinary computer without a piece of software dedicated to this purpose such as IntelViewer, Enterprise Viewer or the

<sup>2</sup> <https://www.Dicomstandard.org/>

<sup>3</sup> See Larobina, M. (2023) Thirty Years of the DICOM Standard, Tomography, Oct 6;9(5):1829-1838. Doi: 10.3390/tomography9050145



3DICOM™ Viewer. But they can be stored onto CDs and DVDs and so patients and doctors are having to do this. Such a disk may have a DICOM viewer (i.e., the software) or it may have a link so people can download or view DICOM files. Of course, tough luck if you no longer have a CD or DVD server.

A DICOM file has a header and image data sets combined into one file. The header consists of tags such as patient demographics (i.e., date of birth, gender and age) and sometimes parameters to the image like dimensions and pixel intensity.

Files in this format tend to be a large size i.e., over 30MB. While files could theoretically be converted to simpler formats like PNG and JPEG, the image quality could be diminished, or other information could be lost.

DICOM is not just a file format. It alludes to the entire network through which medical images can be shared in a vendor-independent manner. As we'll show in this report, 3DICOM™ can help physicians retrieve existing medical images and report for a patient and make a diagnostic review of the image (including measurements and annotations) using SHG's own 3DICOM™ Viewer software or any other DICOM Viewer. The 3DICOM™ solution is agnostic both from a PACS and Viewer perspective.

DICOM has played an important role in the last 3 decades by making it easier to transmit and view medical files and also to encourage and facilitate data exchange between researchers. And so 3DICOM™ does not come up with a new file format but addresses some of DICOM's shortcomings to ensure that the DICOM format can still be utilised.

*3DICOM™ is a software system for viewing 3D medical images in the Dicom format.*

*The main competitive advantage of Singular's technology is communication between PACS (Picture Achieving and Communications Systems).*

## What is Singular Health's 3DICOM™ and what does it do?

3DICOM™ is a software system for viewing, accessing, and sharing 3D medical images in the DICOM format as well as the reports attached to it.

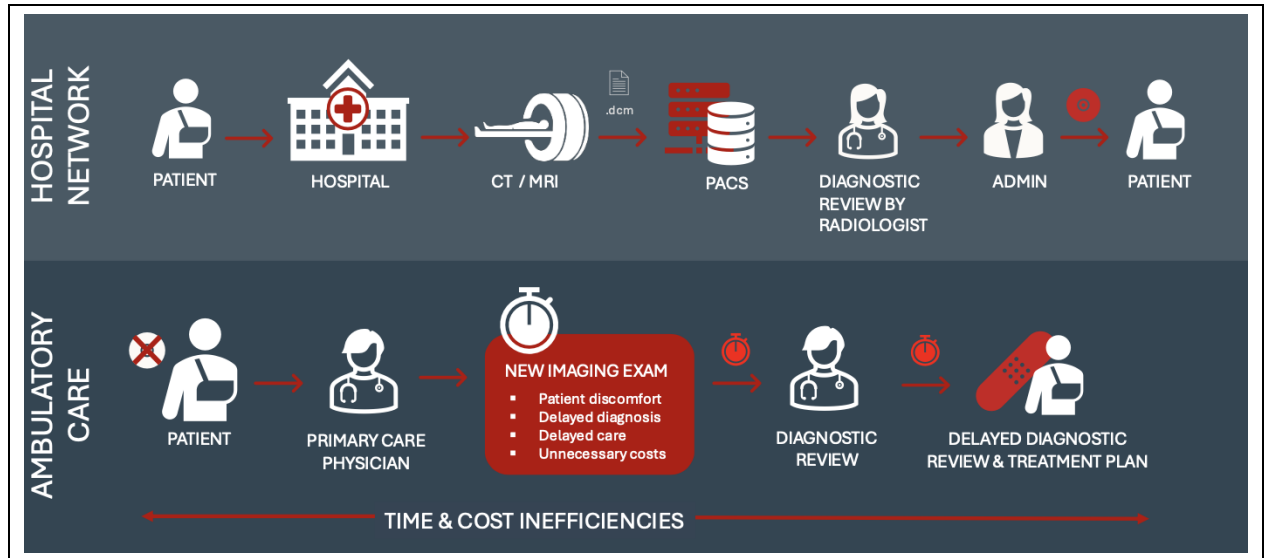
3DICOM™ key function is allowing standard radiology data from DICOM files to be displayed in 3D form. Others include converting 2D scans into interactive 3D models, sharing images between devices, platforms and facilities (accessing them quickly) and storing them securely. Increasingly, the platform will utilise AI to enhance understanding and workflows – we'll delve into the potential of AI to enhance 3DICOM™ shortly. In 5 words: it enables customers to **Convert** (2D to 3D), **Leverage** (Information), **Store** (files securely), **Share** (images between devices) And **Access** (images fast).

**Why do doctors need 3D medical images from products like 3DICOM™?** 3D imaging technology markedly increases the information available on a pathology compared to what's available on 2D imaging, making for better diagnoses. The main competitive advantage of Singular's technology compared to other 3D-image viewing technology is communication between PACS (Picture Achieving and Communications Systems). Most PACS don't talk to each other. With 3DICOM™, they can. And so this means that patients can be diagnosed and treated faster because the need for duplicate images will be eradicated (Figure 2 and Figure 3).



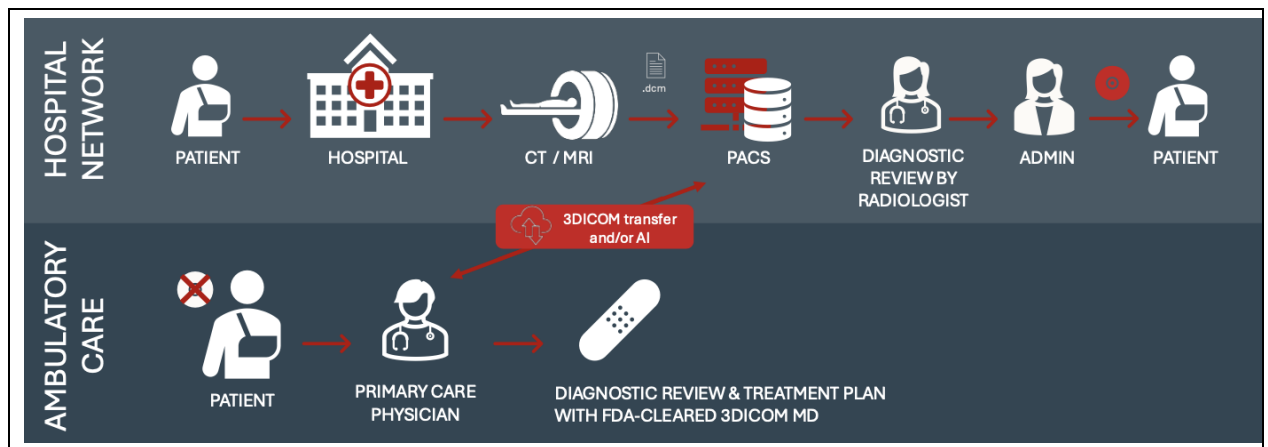


Figure 2: Medical imaging without 3DICOM™



Source: Company

Figure 3: Medical imaging with 3DICOM™



Source: Company





***3DICOM™ facilitates better diagnosis and treatment planning, and better communication about treatment options between doctor and patient.***

***Siloed PACS means medical professionals can't access images. The best they can do today is either make patients undergo another scan or keep the images on older technologies like CDs and floppy disks.***

## What's so special about 3DICOM™?

3DICOM™ enables real interoperability by connecting disparate hospitals and clinics for better delivery of care, faster diagnosis and treatment intervention and better communication about treatment options between doctor and patient while tackling longstanding inefficiencies and reducing costly duplicate imaging.

The solution comprises three key components: the 3DICOM™ Gateway, the 3DICOM™ Viewer, and an integrated AI layer. The 3DICOM™ Gateway enables rapid search and retrieval of existing DICOM files and reports from multiple PACS connected to a healthcare network, through a process that is significantly faster than the current benchmark. Singular Health's proprietary Medical File Transfer Protocol (MFTP) serves as the transmission layer, or the rail, for delivering files from PACS systems to providers. Retrieved files can be accessed through the 3DICOM™ Viewer—an FDA-cleared platform—or via any other imaging viewer already in use by clinicians. An additional AI layer runs on the medical images, delivering advanced insights that support earlier diagnosis and more informed treatment decisions.

The 3DICOM™ platform enables seamless transmission of files across disparate PACS, regardless of vendor or location, and without disrupting a hospital's existing IT infrastructure.

It's easy to underappreciate how siloed PACS systems can be—and just how significant the impact of that fragmentation is in practice. If a clinician, whether a radiologist or a surgeon, can't retrieve the necessary files, it may delay diagnosis or prevent a timely decision altogether. In some cases, the patient may need to return for another scan, resulting in increased costs, delays in care, and potentially unnecessary exposure to radiation. 3DICOM™ is designed to overcome these barriers and streamline access to critical imaging data.

Currently the best physicians are able to do in order to avoid those problems is to keep records physically or with older technologies, like CDs and floppy disks (Figure 4). *Yes, sometimes files may need to be kept on CDs even when neither the doctor nor patient has CD players!* And of course, duplicate CDs need to be kept for them and for other parties who may need to retain a physical copy of the imaging data for internal records.



Figure 4: Floppy disks – a technology still used to store medical images in 2025



Source: Envato Stock image

Although there are varying estimates as to the proportion of medical images taken that are duplicates, the cost of all duplicate images was estimated in 2019 to add up to US\$30bn per year<sup>4</sup> and this figure has likely increased since then due to inflation. Cumulative US inflation since 2019 would increase this to US\$37.9bn, all other things being equal<sup>5</sup>.

Of course, the costs to individual companies are large too. Singular has told investors that one anonymous client has reported spending US\$36m in imaging, of which US\$12m is duplication cost<sup>6</sup>. For PNS specifically, it has estimated that duplicate imaging costs are US\$35 per member per month<sup>7</sup> which would be \$1.5bn across its entire base. In those instances, it is a significant cost to all involved, but a cost that 3DICOM™ could significantly reduce by providing access to existing patients' images stored in the different hospital's databases, anytime and anywhere. Of course, there may be legitimate clinical reasons when additional images may need to be taken (such as if a patient's condition quickly deteriorates or in case of chronic conditions) but there shouldn't need to be images taken *just because* the initial images could not be accessed.

## Other benefits of 3DICOM™

**3DICOM™ has other benefits too including as an educational tool for patients on their own conditions, as well as for use at medical schools.**

Beyond those general benefit of reducing unnecessary image duplication, speeding up treatment planning and diagnosis, 3DICOM™ delivers other benefits too:

<sup>4</sup> Smith-Bindman R, Swan ML, Marlow EC, et al. Trends in Use of Medical Imaging in US Health Care Systems and in Ontario, Canada, 2000-2016. JAMA 2019;322(9):843-856. Doi:10.1001/jama.2019.11456

<sup>5</sup> Using inflation data from the U.S. Labor Department's Bureau of Labor Statistics which suggests cumulative inflation of 26.2% since 2019.

<sup>6</sup> <https://www.theaustralian.com.au/business/stockhead/content/virtual-reality-medical-imaging-singular-health-up-117pc-ytd-as-key-investors-climb-aboard/news-story/de2430112be4698301317066fd8f48ba>

<sup>7</sup> ASX announcement 20 November 2024

- Providers can review the images on an industry standard, 3D, FDA-cleared, DICOM viewer but can also use their existing DICOM viewer, minimising any alteration to their current workflow.
- Turning to other uses, 3DICOM™ could also find application in medical schools as an educational resource, allowing medical students to study specific cases in a more accessible, hands-on way. Two of Singular's first clients in this space were the Roseman University of Health Sciences which in 2024 signed a purchase order for 50 3DICOM™ R&D licenses and 5,000 Patient Licenses and Saudi Arabia's Majmaah University, which signed a deal in late 2023 and renewed the following year. We will address the market opportunity facing Singular in relation to medical schools in the next section of this report.
- The patients themselves will be able to have a clearer understanding of their own anatomy and medical issues. They too can use 3DICOM™'s intuitive tools for exploration and real-time access and engagement. This would give them more confidence in their own decision-making and justifies consent they give to their procedures.
- Moreover, patients will have quicker and more secure access and manage of their data. There is a mobile app that patients can download from the Apple Store and Google Play and enables patients to carry their medical imaging records in their pockets, manage them anytime and anywhere, view them in 2D and 3D and share them with their practitioners, family, and friends.

## 3DICOM™'s underpinning technologies

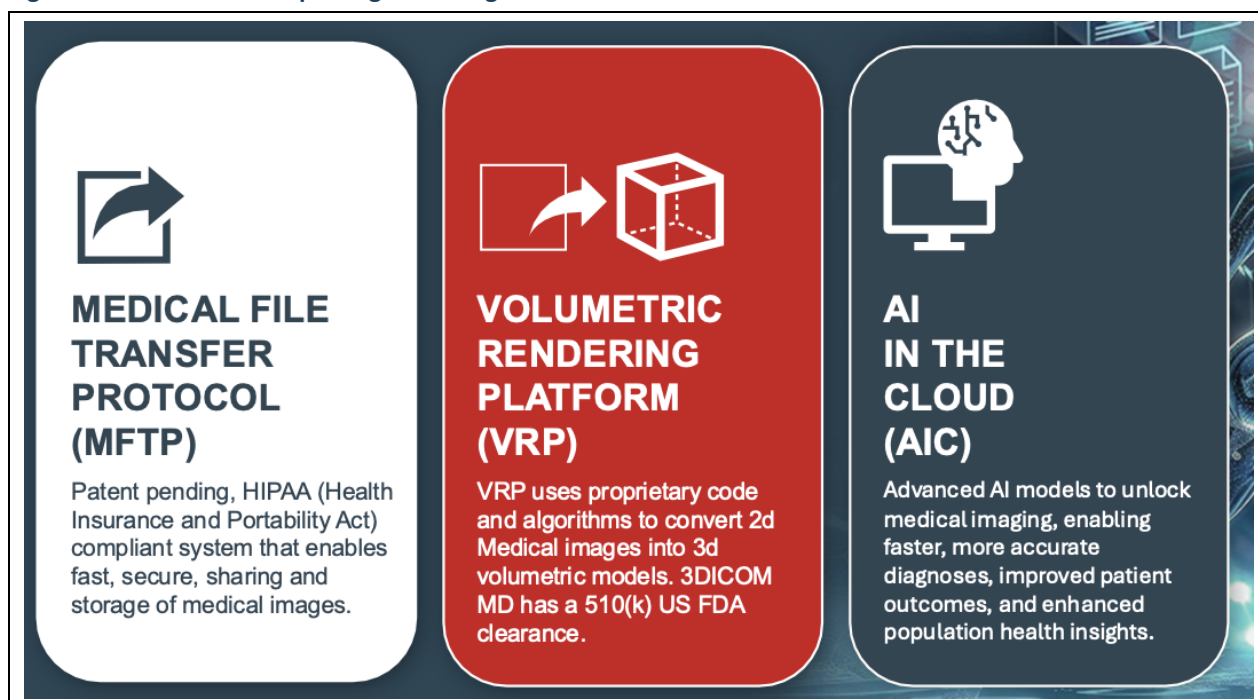
3DICOM™ is underpinned by 3 technologies (Figure 5):

- **Medical File Transfer Protocol (MFTP).** It is a system enabling fast, secure, sharing and storage of medical images. Crucially it can integrate seamlessly across multiple PACS systems. It is HIPAA-compliant meaning it adheres to privacy and security rules which are outlined in the Health Insurance Portability and Accountability Act of 1996 and are applicable to all covered healthcare entities and associates that handle Protected Health Information (PHI).
- **Volumetric Rendering Platform (VRP).** This uses proprietary code and algorithms to convert 2D medical images into 3D volumetric models. In doing this, some anatomical and pathological details of the scan could be better visualised in relation to the surrounding structures. Moreover, they are stored in industry-standard file types ensuring the images can integrate easily into existing workflows. They can work with 2D images from CT, MRI and PET scans.
- **AI in the Cloud (AIC).** Underpinning 3DICOM™ are a series of AI models to unlock medical imaging, ensuring a quick and accurate diagnosis, and better stratify patients based on their level of risk and thus improve patient outcomes. One of these is Total Segmentator which provides automatic segmentations of major anatomic structures on CT and MRI images. The model is couple with ChatGPT to offer accurate and detailed descriptions of all the anatomical structures being segmented for better learning and understanding of anatomy. These models can be run during file transfers, accelerating image processing. These AI models are also available to medical students and researchers who used 3DICOM™.

*3DICOM™ is underpinned by the Medical File Transfer Protocol, Volumetric Rendering Platform and AI in the Cloud.*



Figure 5: 3DICOM™ underpinning technologies



Source: Company

*Singular Health has been working to adopt AI into its software, given AI's potential to speed up imaging processes.*

**Can AI improve Singular's technology?** Yes, Singular has demonstrated that artificial intelligence can lead to superior outcomes when integrated into its technology. In March 2021, the company announced that a collaboration with CSIRO had produced an AI model capable of automatically segmenting spinal vertebrae from CT scans. This usually takes four to five hours when done manually, but that was reduced to 10 minutes with Singular's model. Singular has since developed an application called 'AI in the Cloud' (AIC). AIC is a marketplace of proprietary and third-party AI models that are fully integrated in the platform, offering users the opportunity to pick and choose the model of interest, and view the output through the platform in the form of a report, an image, or as segmented structures overlayed onto the original DICOM image. The use of these models enabled faster diagnoses, deeper insights, and more informed decision-making.

Down the track, there could be potential revenue opportunity around fee for clicks and the running of AI models. This is particularly because imaging databases are costly to acquire and PNS brings this to the table.

Looking more broadly at the opportunity of AI in healthcare, Harvard Medical School figures show AI assisted diagnosis could improve health outcomes by up to 40% and reduce treatment costs up to 50% by improving diagnosis, increasing access to care, and enabling precision medicine<sup>8</sup>. SHG could form a major part of this. The estimated market for AI in health care by 2030 could be US\$187.9bn.

**What is the intellectual property around 3DICOM™ products?** The technology underlying MedVR, which also laid the foundation for 3DICOM™, is covered by a patent application entitled 'Medical virtual reality and mixed reality collaboration platform'. More importantly, the products are covered

<sup>8</sup> <https://execonline.hms.harvard.edu/artificial-intelligence-in-health-care-from-strategies-to-implementation>



by trade secrets around the core VRP and its related software. Contracts the company has signed to date involve it retaining all intellectual property rights as a standard part of the terms and conditions.

**What is the 3DICOM™'s revenue model?** 3DICOM™ is delivered through a SaaS model with a scalable online knowledge base. The products therefore earn recurring revenue. SHG's plan for the US market is to charge annual license fees for each physician that uses it. An additional revenue stream is the access to AI models that are charge on a pay-per-click model.

**What approvals does 3DICOM™ have?** It was approved by the FDA in October 2022 as a Class II Software-as-a-Medical Device (SaMD) in the United States. The submission was approved 3 weeks ahead of the typical 90-day schedule, indicating the confidence the regulator had in it as well as the high-quality of Singular's submission.



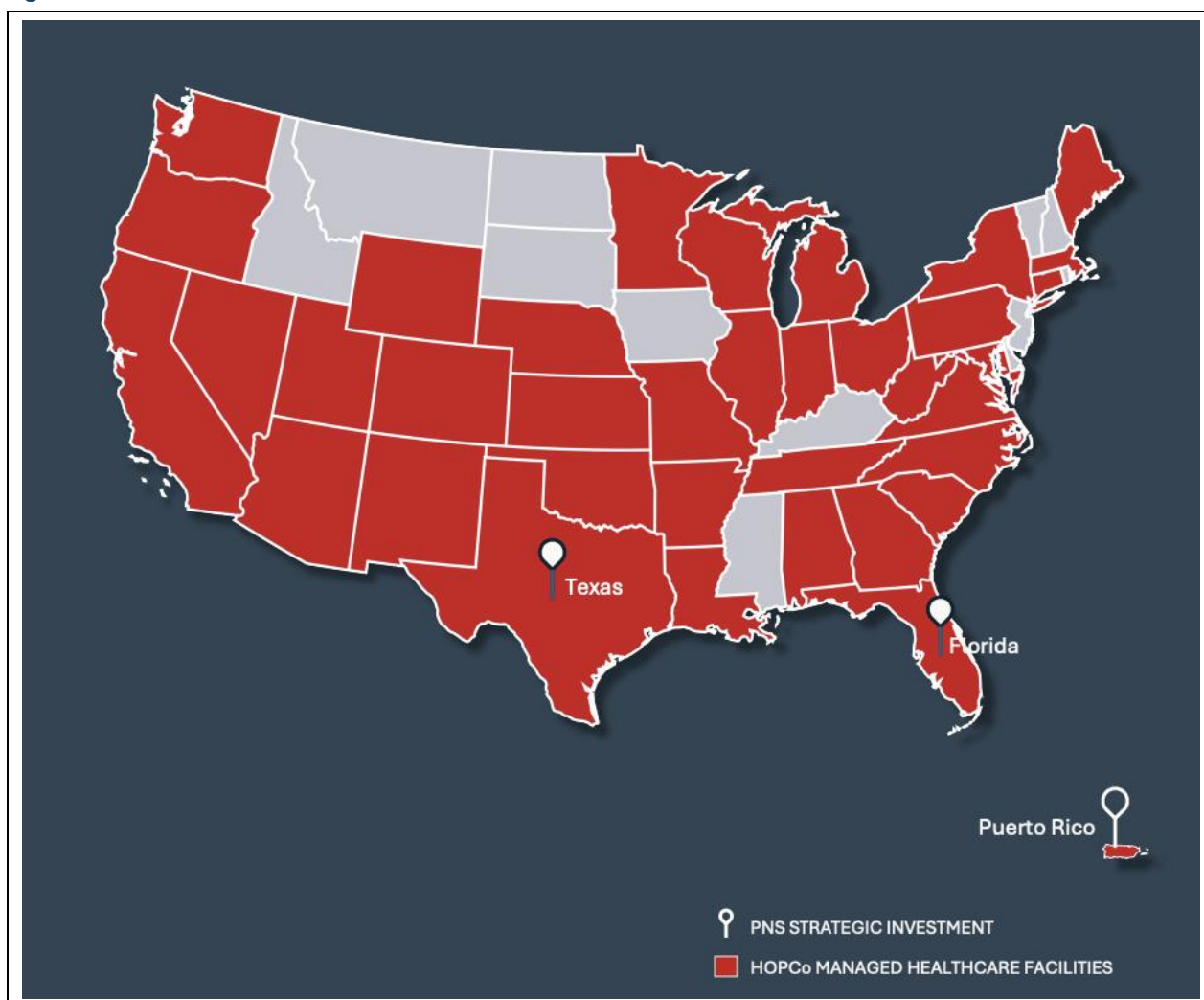
***PNS a Miami-based Managed Service Organisation that manages the health plans for over 3.7m patients.***

## Singular's PNS opportunity

Before we delve into the broader market, we think it is necessary to address SNG's specific opportunity with Provider Network Solutions (PNS). PNS is a Miami-based Managed Service Organisation (MSO) that manages the health plans for more than 3.7 million patients across Florida, Texas, and Puerto Rico (Figure 6).

Singular's arrangement with PNS is the first of its kind and would arguably be enough of an opportunity to invest in Singular even if there was no further opportunity. Of course, Singular will strive to secure more agreements similar to the one with PNS so there is even more upside to come beyond this deal – which is why Singular's share have re-rated in 2025. But it will be an important pilot case study for other would-be clients, depicting to them what 3DICOM™ can do, and also showing investors that large-scale distribution is possible. MSOs covering multiple millions of patients will take a leap of faith in a \$100m company from Australia and adopt its technology.

Figure 6: PNS' network



Source: Company





*Singular's collaboration with PNS began as a non-binding MoU and is now a US\$1.3m binding enterprise agreement.*

## The evolution of the PNS deal

In 2024, PNS started evaluating the technology and signed a non-binding MoU with Singular in November of that year following several months of collaboration where the pair co-designed a bespoke solution to fit into PNS' workflows and its network. The initial agreement provided a pathway towards an initial commercial pilot and a subsequent full-scale rollout to the network. Despite the MoU being non-binding, it was a positive sign that PNS became an investor in the company, agreeing to a \$500,000 cornerstone investment at A\$0.09 per share<sup>9</sup>.

In 2025 the PNS collaboration has made significant advances.

- In January 2025 Singular announced that the first phase of the collaboration was a success. The technology had been able to demonstrate technical proof of concept with PNS. Medical images were searched, retrieved, shared, and analysed by within minutes as opposed to several days. Moreover, quantitative analysis was provided without adding to radiologist's workload with the help of 3DICOM™'s third-party AI models. Singular told its investors there would be one more pilot phase prior to commercial deployment. This phase would help quantify the significant savings and technology benefits to PNS and provide the road map for the future rollout.
- Evidently, this later phase was a success. Because in June 2025, Singular announced a US\$1.3m (A\$2m) binding enterprise agreement for a pilot programme where Singular would deploy 1,000 3DICOM MD™ Licences across its network at US\$800 per licence. Moreover, the diagnostic AI models present in 3DICOM™ would come as part of the package, as would the development of a centralised repository for medical images within PNS' network.

Right as the binding enterprise agreement was signed, PNS invested more money into Singular, subscribing for \$150,000 as part of the \$8m placement completed in June. This was another demonstration of confidence in the company.

<sup>9</sup> ASX announcement 20 November 2024.





***If all US physicians had 3DICOM™ at US\$800 a license where each physician has an average 19 payer contracts, the market is US\$19bn in Annual Recurring Revenue.***

***Singular Health has a 'niche' market opportunity in medical education institutions.***

## The broader opportunity for Singular

Singular's opportunity with PNS could just be the tip of the iceberg. In the US there are 1.3 million physicians in the US. If each one had 3DICOM™ at US\$800 a license where each physician has an average 19 payer contracts, the market is US\$19bn in Annual Recurring Revenue.

Singular's business model is to sell to physicians through MSOs such as PNS. MSOs act as strategic partners for healthcare providers, solving administrative and operational problems that hinder them. MSOs make their money via management fees, a percentage of provider revenue, service-based charges, shared savings or performance incentives and vendor partnerships. This is an easier 'go to market' strategy for SHG than going to individual physicians or hospitals. MSOs implement the technology into their networks and will be able to do so regardless of what PACS are in place.

## The medical imaging opportunity for Singular isn't just in respect of patient-facing physicians

There is also a 'niche' market opportunity in medical education institutions. We alluded earlier to Singular's deals with Roseman University and with Saudi Arabia's Majmaah University and noted that the software could be useful as an educational tool. 3DICOM™ would 'bridge the gap' between stylised, interactive 3D anatomical models generated by universities' design and illustration work and real patient medical cases.

While Singular's focus is on its alliance with PNS for now, increased adoption would mean it would become important for students at medical schools to be aware of and perhaps use for themselves. The global medical education market is US\$44bn and the US market is worth US\$17.6bn, just over 40% of this<sup>10</sup>.

PNS has a joint venture with Healthcare Outcomes Performance Company (HOPCo) a national healthcare organisation with operations in over 30 states, and through this and PNS partners and network, this will help promote 3DICOM™ to MSOs beyond PNS. Moreover, Singular has Marin and Sons as its Public Affairs and Corporate Advisor, and Marin is a shareholder in the company. It first invested \$850,000 in November 2023, then \$773,000 in 2024 and a further \$150,000 in June 2025. In May 2024, Marin and Sons agreed to waive its monthly retainer for its services in favour of a purely success-based remuneration structure, a sign of confidence in the company if ever there was one.

<sup>10</sup> FactMr data and ASX announcement 1 February 2024.



*It is obvious to compare Singular to Pro Medicus (ASX:PME), even if there is a long way to go.*

*Imricor (ASX:IMR) is a more realistic example of what Singular could re-rate to in the next year or two.*

## Peer precedent

There aren't many comparable technologies to Singular, but it is not irrelevant to consider other ASX companies in the healthcare technology and/or radiology spaces that have entered the US market.

The name everyone will think of is **Pro Medicus (ASX:PME)** which has software (Visage) that allows the sharing and analysis of images taken by other devices – streaming images to a doctor or radiologist's office, computer or phone in a file size appropriate for those smaller devices. The aim is to increase a surgeon's productivity by speeding up tasks that other technologies can only accomplish in time-consuming manners. Visage can integrate into any brand or type of imaging hardware, and it is a 'per click' model i.e., there are customer charges just for viewing images.

Moreover, PME sells to hospitals and its solution is aimed at replacing the entire hospital infrastructure, including the PACS systems, to enable interoperability across their network, rather than being PACS agnostic like 3DICOM™ and connecting siloed systems and PACS.

It is obvious to suggest Singular can 'become the next Pro Medicus' because it has had early-stage success and it also has radiology software. And given the success PME has had, being capped at over \$30bn, investors would welcome a re-rating like that. Of course, Singular Health has a long way to go – even PME took 15 years to reach the level it has following the acquisition of Visage.

Nonetheless, PME does go to show that radiology can be a high-margin business and that the US is such a large market that a company doesn't necessarily have to reach a high penetration in the market in order to make a lot of money from it. PME claims to have penetrated less than 10% of the market. The company makes just under \$200m in annualised revenue and has an EBITDA margin of 75% and a profit margin of >50%<sup>11</sup>.

Another is **Imricor Medical System (ASX:IMR)** that designs, manufactures, sells and distributes MRI-compatible products for cardiac catheter ablation procedures in the USA. While not quite at the heights of Pro Medicus, it is capped at \$410.2m, a figure that has more than doubled in the last 12 months.

This is even in spite of the company having only commercialised its product suite in Europe and still awaiting US approval (albeit expecting it in the first half of 2026). It nonetheless depicts what Singular Health could become in the next 12-24 months even if reaching a capitalisation in the billions could be some years away. Even so, a market capitalisation of \$400m would be a significant re-rating from current levels.

## Major backing

Virtually all who have seen 3DICOM™ in practice have had nothing but positive things to say. It is rare to find US business partners that choose to invest into the company as PNS and Marin have done. We also note Singular's recent appointment of renowned Florida-based radiologist Dr. Alex Alonso and how he will receive fees for his 6-month engagement purely in Singular shares rather than a consulting fee in cash<sup>12</sup>.

Another backer is Craig Sellars, a co-founder of cryptocurrency stable coin Tether and a renowned technology investor. In mid-2024, Sellars bought

<sup>11</sup> Based off PME's most recent results – FY24 and 1H25.

<sup>12</sup> ASX announcement 3 July 2025.

6.66m shares in Singular, after seeing 3DICOM™ first hand in his personal life and describing it as ‘miles beyond and similar offering’<sup>13</sup>. His investment was \$1m back 16 months ago, now his investment is more than double that.

And finally, we note Dr Ronny Low who joined Singular in December 2024 in an advisory capacity; he bought 7,810,968 shares on-market as he joined the company. Dr Low is a highly regarded radiologist who has held several positions within the Royal Australian and New Zealand College of Radiologists (RANZCR) and has over 20 years of clinical experience working in NSW and WA in both large public hospitals and private radiology groups.

## Singular Health’s management

The company’s current board and leadership composition is as follows (Figure 7):

**Figure 7: Singular Health’s leadership composition**

Board of Directors	
Name and Designation	Profile
<b>Howard Digby</b> Non-Executive Chairman	Mr. Digby has a Bachelor of Engineering (Hons) from the University of Western Australia. He began his career at IBM and has spent over 25 years managing technology-related businesses in the Asia Pacific region, of which 11 years were spent in Hong Kong.
<b>Denning Chong</b> Executive Director	Mr. Chong has been principal of JC Lawyers since 2004 and has been involved since SHG’s early days, assisting with early-stage funding and governance. A co-founder of SHG, he transitioned from non-executive director to CEO in 2023. My Chong holds degrees in Law and Commerce and Harvard certification in AI for Healthcare. He also holds board roles at Mutual Limited (\$3.3B funds under management) and Aloft Hotel Perth.
<b>Andrew Just</b> Non-Executive Director	Mr. Just has held senior management roles in multiple Tier 1 health companies including as CEO and MD of Paragon Care Ltd. He has two bachelor’s degrees in economics & Health Economics from Macquarie University and Monash University and an MBA from UNSW.
<b>Martina Mariano</b> Chief Operating Officer	Dr. Mariano is responsible for the general operation, global expansion and go-to-market strategy of the Company’s software products and 10+ years of experience between the US, Europe, and Australia. She is a graduate of the Australian Institute of Company Directors (GAICD) and holds a Ph.D. (Medicine), an MSc (Genetics and Molecular Biology), and a BSc. (Biotechnology).

Source: Company

<sup>13</sup> ASX announcement 14 March 2024.



*We value Singular at \$493m in our base case scenario (or \$1.63 per share) and at \$690.3m per share in our bull case (or \$2.29 per share).*

## Our valuation of Singular Health

We value Singular at \$493m in our base case scenario (or \$1.63 per share) and at \$690.3m per share in our bull case (or \$2.29 per share). We have used a DCF methodology over 10 years commencing from the start of this financial year.

## Practical assumptions

Before we delve into our financial assumptions, we need to state a few practical assumptions:

- At Pitt Street Research, we do not always assume terminal growth for MedTech or biotech companies, but we have on this occasion because the company will not have 'market exclusivity' at least not in legal theory even if this is borne out in practice. In other words, Singular will never have a period of designated 'Market Exclusivity' as other companies (particularly Orphan Drug makers) may – even though Singular may entrench a strong market position for 3DICON™ as customers adopt the product. We note this because terminal growth is a key component of our valuation (worth 60% of our enterprise value).
- We have 'discounted' our cash flows (by 14.5%) but have not given any further probability weighting because the company has its device approved and has signed a commercial agreement. Any probability weighting would reduce our valuation.
- We have used the ordinary number of shares on issue (301.7m) rather than the diluted number of shares (413.9m) but using the latter would reduce our valuation to \$1.19-\$1.67 per share even though our equity value would remain the same. While we cannot be certain how many options will be exercised, the likelihood that at least a significant proportion of them will be is high.
- We have not assumed any further capital raisings as our financials forecast the company to have sufficient capital requirements to meet its current growth agenda, but the prospect of future capital raisings cannot entirely be ruled out, particularly if some of the risks outlined in our risks section come to light. Again, any increased number of shares on issue would reduce the per share value of the company.

## Financial assumptions

The key financial assumptions driving our DCF valuation are as follows below:

- **Revenue model.** We assumed a model of annual fees per license of US\$800. We have adopted the public assumption of Singular, but this is a highly sensitive input. Each US\$200 adjustment would wipe \$100m off our valuation (which is ~\$0.30 per share using diluted shares or ~\$0.40 per share using non-diluted shares) (Figure 8).



Figure 8: Sensitivity of the license fee to our valuation

License Fee (US\$m)	Base Case (\$m)	Per share
200	\$140.0	\$0.46
400	\$254.4	\$0.84
600	\$374.0	\$1.24
<b>800</b>	<b>\$493.0</b>	<b>\$1.63</b>
1000	\$613.2	\$2.03
1200	\$733.3	\$2.43
1400	\$853.5	\$2.83

Estimates: Pitt Street Research

- **Market penetration.** We assume SHG only has its current PNS contract as its market for 3-4 years which would still be 192,708 physicians. We assume 5% in FY26 (which would amount to just under 10k physicians) then 20% in FY27 (40k) and 45% in FY28 (87k physicians). Our model switches to using 1.3m physicians in the US and we assume 20% penetration within 10 years from now which would be 260,000 physicians. We have not assumed any growth in physicians (we've stuck with the same numbers) because the direction the number US physicians will go is highly uncertain.
- **Costs and margins.** We assume operating expenses settle at 60% of revenue within 5 years, 30% R&D, 25% employee, director and consultancy fees and 5% corporate, admin and sales. We also assume some depreciation of PPE, but the number is immaterial considering the size of its PPE 'book'.
- **Funding.** We have assumed there is no need for further capital raisings, given the two raisings in FY25. Nor have we assumed any borrowings.
- **Tax.** We assume an eventual 30% rate in conjunction with Australia's rate. Even though the US federal rate is only 21%, SHG may be liable to pay state income taxes and potentially a degree of tax in Australia as US taxes may not be enough to totally offset liability here.
- **Exchange rate.** We assume A\$1 is US\$0.65.
- **Discount rate.** We arrive at a WACC of 14.5%, reflecting a 7% equity premium, 4% risk-free rate of return and a 1.5x beta.

Figure 9 shows our assumptions, Figure 10 is our final valuation and Figure 11 shows the sensitivity of our valuation (on a per share basis) to various WACCs).



Figure 9: 3DICOM™ assumptions

Key inputs A\$	BASE	BULL
Annual Fee per license	800	800
Total physicians USA	1,300,000	1,300,000
Physicians for PNS	192,708	192,708
Contracts per physician	19.2	19.2
Peak Physicians served	260,000	390,000
TAM (A\$m)	19,968	19,968
Market penetration	20%	30%
AUD/USD	0.65	0.65
USD/AUD	1.54	1.54
Tax rate	30%	30%
Discount rate	14.5%	14.5%
Terminal growth rate	2%	2%
Valuation (A\$m)	493.02	690.28
Valuation (A\$ per share) - ordinary	1.63	2.29
Valuation (A\$ per share) - diluted	1.19	1.67

Estimates: Pitt Street Research

Figure 10: DCF calculation

Valuation (A\$m)	Base Case	Bull case
Present Value of FCF	193.9	248.6
Present Value of Terminal Value	284.7	427.2
<b>Enterprise Value (A\$ m)</b>	<b>478.6</b>	<b>675.9</b>
Net (debt) cash	14.2	14.2
<b>Equity value (A\$ m)</b>	<b>493.0</b>	<b>690.3</b>
Shares outstanding (diluted)	301.7	413.9
<b>Implied price (A\$)</b>	<b>1.63</b>	<b>2.29</b>
Current price (A\$)	0.31	0.31
Upside (%)	427.2%	638.1%

Source: Pitt Street Research

Figure 11: Sensitivity analysis of DCF calculation (base case)

		WACC						
		11.5%	12.5%	13.5%	14.5%	15.5%	16.5%	17.5%
Terminal Rate	0.5%	2.19	1.91	1.70	1.51	1.36	1.23	1.11
	1.0%	2.23	1.95	1.74	1.55	1.40	1.27	1.15
	1.5%	2.26	1.99	1.78	1.59	1.44	1.31	1.19
	2.00%	2.30	2.03	1.82	1.63	1.48	1.35	1.23
	2.5%	2.35	2.08	1.87	1.68	1.53	1.40	1.28
	3.0%	2.40	2.13	1.92	1.73	1.58	1.45	1.33
	3.5%	2.45	2.18	1.97	1.78	1.63	1.50	1.38

Source: Pitt Street Research



## Risks

We see the following key risks to our investment thesis:

- **Funding risk:** There is a risk that Singular will need future external funding. Raising funds on favourable terms (both debt and equity) along with timeliness can be a key challenge for med-tech companies in the early stage of commercialisation.
- **Regulatory risk.** Singular's ability to commercialise its product is contingent on regulators maintaining approval where it already exists (including meeting ongoing regulatory compliance requirements) and giving approval to new products. A failure to give new products approval, or even a withdrawal of approval, could be catastrophic to its future ambitions.
- **Commercial risk.** There is the risk that the company may fail to execute its commercial objectives for a variety of reasons including competition, technological advancements, and reputational hits due to product liabilities. We also note that Singular's arrangement with PNS is a year-to-year agreement and while the default is for the agreement to automatically renew, the parties can agree not to extend it further.
- **Cybersecurity risk.** There is the risk that data breaches may occur, and this could have a major impact on the company's reputation.
- **Key personnel risk:** There is the risk the company may lose key personnel and be unable to replace them and/or their contribution to the business.

**Caveat emptor.** Investors are advised to be cognisant of the abovementioned specific and general risks before buying any the shares of any biotechnology and medical device company mentioned in this report, including Singular Health.





## Appendix I - Glossary

**2D (2 Dimensional)** – Having width and length but no breadth.

**3D (3-Dimensional)** – Having 3 dimensions, length, width and height (or depth).

**Cardiac Catheter Ablation** – A minor heart surgery treating rhythm problems by using a catheter to deliver energy to specific heart tissue, creating scar tissue to block abnormal electrical signals.

**Compact Disc (CD)** – A data storage mechanism in the form of an optical disc.

**Computed Tomography (CT) scan** – A medical image that uses X-rays and a computer to create detailed cross-sectional images of the body. They involve multiple scans of a body being taken at once, usually as a patient moves through a specific gantry. They are more detailed than X-rays but are longer and more complex to administer and interpret.

**Digital Imaging and Communications in Medicine (DICOM)** – A standard for handling, storing, printing and transmitting information in medical imaging. IT enables interoperability between medical imaging systems.

**Magnetic Resonance Imaging (MRI)** – A medical imaging technique that uses strong magnetic fields and radio waves to create detailed images of the body's internal structures. MRI scans are unique in their lower levels of radiation compared to X-ray and CT scans and tend to be used for high level diagnosis of diseases in the musculoskeletal system and central nervous system (CNS) as well as for the detection of tumours and other abnormalities at various stages.

**Managed Service Organisation (MSO)** – An organisation that acts as a strategic partner, solving administrative and operational problems hindering healthcare providers.

**Medical File Transfer Protocol (MFTP)** – A system of SHG's enabling fast, secure, sharing and storage of medical images.

**MedTech** – Short for medical technology.

**Oncologist** – A person who practices oncology, which is the treatment of cancer.

**Picture Archiving and Communication System (PACS)** – A digital system used to store, retrieve, and share medical images, replacing traditional film-based methods.

**Positive emission tomography scan (PET scan)** – A type of nuclear medicine in which radioactive material called a radiotracer is administered intravenously or intra-nasally to the patient. They are used to formally diagnose particular forms of cancer and are first produced in serial section format as 2D images and these images in combination can form a 3D volume.

**Radiology** – A general term alluding to the field of medical imaging.

**Recurring revenue** – Income a business such as SHG can consistently count on receiving at regular intervals (i.e., through subscriptions).

**Software as a Service (SaaS)** – A business model for software companies where software is sold under a recurring subscription model.

**Volumetric Rendering Platform (VRP)** – A technology of SHG's that uses proprietary code and algorithms to convert 3D medical images into 3D volumetric models.

**Xray** – A type of radiation used to create a 2D picture of the inside of a patient's body, or sometimes used to allude to the pictures themselves created by the radiation.



## Appendix II – Capital Structure

Class	In Millions	% of dully diluted
Ordinary shares	301,692,227	73%
Options	96,751,298	23%
Performance shares	15,450,000	4%
<b>Fully diluted shares</b>	<b>413,893,525</b>	

Source: Company

## Appendix III – Analysts' Qualifications

Stuart Roberts, lead analyst on this report, has been an equities analyst since 2002.

- Stuart obtained a Master of Applied Finance and Investment from the Securities Institute of Australia in 2002. Previously, from the Securities Institute of Australia, he obtained a Certificate of Financial Markets (1994) and a Graduate Diploma in Finance and Investment (1999).
- Stuart joined Southern Cross Equities as an equities analyst in April 2001. From February 2002 to July 2013, his research speciality at Southern Cross Equities and its acquirer, Bell Potter Securities, was Healthcare and Biotechnology. During this time, he covered a variety of established healthcare companies, such as CSL, Cochlear and ResMed, as well as numerous emerging companies. Stuart was a Healthcare and Biotechnology analyst at Baillieu Holst from October 2013 to January 2015.
- After 15 months over 2015–2016 doing Investor Relations for two ASX-listed cancer drug developers, Stuart founded NDF Research in May 2016 to provide issuer-sponsored equity research on ASX-listed Life Sciences companies.
- In July 2016, with Marc Kennis, Stuart co-founded Pitt Street Research Pty Ltd, which provides issuer-sponsored research on ASX-listed companies across the entire market, including Life Sciences companies.
- Since 2018, Stuart has led Pitt Street Research's Resources Sector franchise, spearheading research on both mining and energy companies.

Nick Sundich is an equities research analyst at Pitt Street Research.

- Nick obtained a Bachelor of Commerce/Bachelor of Arts from the University of Sydney in 2018 and the designation of Financial Modelling & Valuation Analyst by the Corporate Finance Institute. He has also completed the CFA Investment Foundations program.
- He joined Pitt Street Research in January 2022. Previously he worked for over three years as a financial journalist at Stockhead.
- While at university, he worked for a handful of corporate advisory firms

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