



# INFORMATION MEMORANDUM

4Dx Limited | ACN 161 684 831

July 2018 – Updated from October 2017 IM

# IMPORTANT INFORMATION

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## DISCLAIMER

No person is authorised to provide any information or to make any representation, about the Company or in connection with this Round, that is not contained in this Information Memorandum (IM). Potential investors should only rely on the information contained in this IM. Any information or representation not contained in the IM may not be relied on as having been authorised by the Company, its Directors or any other person in connection with this Round.

Neither the Company nor any other person associated with the Company or this Round guarantees or warrants the future performance of the Company, the return on an investment made under the IM, the repayment of capital or the payment of any dividends on the Shares. Before deciding to invest in the Company, investors should read the entire IM.

## FORWARD-LOOKING STATEMENTS

This IM contains forward-looking statements, which include statements identified by use of the words “believes”, “anticipates”, “expects”, “predicts”, “intends”, “plans”, “aims”, “objective”, “potential”, “guidance”, “strive”, “may”, “will”, “would”, “could” or “should” and other similar words that involve risks and uncertainties.

These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions and contingencies that are subject to change without notice and involve known and unknown risks and uncertainties and other factors which are beyond the control of the Company, its Directors and its management. They are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. Any or all of the Company’s forward-looking statements may turn out to be inaccurate.

The Company does not make any representation, express or implied, in relation to forward-looking statements and you are cautioned not to place undue reliance on these statements. Except where required by law, the Company does not intend to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this IM.

These statements are subject to various risk factors that could cause the Company’s actual results to differ materially from the results expressed or anticipated in these statements. Key risk factors are set out in section 4. These and other factors could cause actual results to differ materially from those expressed in any statement contained in this IM.

## ROUNDING

Some numerical figures included in this IM have been subject to rounding adjustments. As a result, numerical figures shown in totals in certain tables may not be an arithmetic aggregation of the figures that preceded them.

## PHOTOGRAPHS, DIAGRAMS, GRAPHS AND TABLES

Photographs and diagrams used in this IM that do not have descriptions are for illustrative purposes only and should not be interpreted to mean that any person included in them endorses or authorises this IM, or its contents, or that any assets shown in them are owned by 4Dx. Diagrams and graphs used in this IM are for illustrative purposes only and may not be drawn to scale. Unless otherwise stated, all information contained in graphs, charts and tables are based on information available at the date of this IM.

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## LETTER FROM THE CHAIR

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On behalf of the Board, it is with great pleasure I introduce to you a unique global healthcare initiative – 4Dx Limited. The following document outlines an opportunity to become a Shareholder, or for existing Shareholders to increase your investment in the Company.

4Dx Limited is a software and technology company founded in Melbourne, Australia, servicing the global respiratory healthcare market, with our Melbourne office now joined by an office in Thousand Oaks, California.

In modern medical facilities, respiratory diagnostics are dominated by three procedures: the pulmonary function test (invented in the 1860s), the X-ray (invented in the 1890s) and the CT (invented in the 1970s). 4Dx was founded to bring modern digital technology to bear in lung health, creating a step change in the capacity of physicians to diagnose and manage patients with diseases of the lung.

The potential to improve millions of lives also brings with it financial opportunity. The respiratory diagnostic sector represents a global market of over US\$25 billion per annum, and 4Dx has a clear plan to address this market, building the Company one product at a time.

Funds from this Round will be used to take our first software product to market, including studies to validate the product, as well as the development and submission of a clearance application to the U.S. Food and Drug Administration (FDA). In conjunction with initiatives directed to achieving FDA clearance, the Company will continue to pursue strategic partnering opportunities in its current markets and regions, including respiratory diagnostics research and development, and hardware development of dedicated scanners.

I am passionate about 4Dx and the opportunity to create a positive impact on global healthcare. I hope that as you learn more about 4Dx, you will join us on our journey.

Yours sincerely,



Andreas Fouras  
Chairman and CEO







# **1. SERIES B FUNDRAISING ROUND**

# 1. SERIES B FUNDRAISING ROUND

## 1.1 KEY DETAILS

The Round under this IM is for the issue of ordinary shares in 4Dx to raise up to AUD\$10,000,000 (with the right of 4Dx to accept over-subscriptions).

In addition to this Round, 4Dx is concurrently raising funds from retail investors under an Offer Information Statement (OIS) disclosure document as defined under the Corporations Act, as well as raising funds from grant applications and product sales. This is intended to provide working capital required to fund 4Dx's ongoing operations, capital expenditure and anticipated FDA submission for 4Dx's core 4DxV Software as a Medical Device product.

This Round is open to sophisticated, wholesale and overseas investors. The subscription price for each Share is AUD\$0.3700. There is no limit to the number of Shares that any investor may apply for.

Applicants are not required to pay any fee, commission, charge or other amount in order to acquire Shares.

The table below summarises the key terms of this Round, and its effect on the Company:

COMPANY	4DX LTD (ACN 161 684 831)	
Issue price per Share	AUD\$0.3700	
	Aggregate Minimum subscription	Aggregate Maximum subscription*
Total number of Shares to be issued under this Round	0 (AUD\$0)	27,027,027 (AUD\$10,000,000)
Total number of Shares on issue immediately following the completion of this Round **	114 Million	141 Million
Inferred company value immediately following the completion of this Round	AUD\$42 Million	AUD\$52 Million
Gross proceeds from this Round	AUD\$0	AUD\$10,000,000
Series B raised @ July 2018 = AUD\$ 5.5 Million		
Series B remaining @ July 2018 = AUD\$ 4.5 Million		

\*Over-subscriptions may be accepted by the Company in its absolute discretion.

\*\* This amount does not account for any Shares which may be issued during this period as a result of, or in connection with, the Employee Equity Plan (EEP) (refer to section 5.7).

## NO AGGREGATE MINIMUM SUBSCRIPTION AMOUNT

There is no minimum aggregate subscription amount which must be raised under this Round before this Round proceeds and Shares are issued.

Often a minimum aggregate subscription amount is set to ensure that aggregate funds raised are sufficient to meet baseline funding commitments against major milestones. This is not appropriate in respect of this Round since 4Dx is also raising working capital from a number of other sources.

## SHARE ISSUE TERMS

Any Shares issued in connection with this IM will be fully paid ordinary shares in the capital of the Company. They will rank equally with and will have the same voting and other rights as the existing issued ordinary shares of the Company. The rights attaching to the Company shares are set out in the Company's constitution (see section 5.6 for more information) and the Corporations Act.

At the date of this IM, the only class of shares on issue in 4Dx are ordinary shares.

## 1.2 IMPORTANT DATES

EVENT	DATE
IM release date	9 October 2017
Round closing date	17 August 2018
Allotment of Shares	Share Applications will be processed on a "first come, first served" basis subject to board approval.
Dispatch of holding statement (title document)	Within a period of 7 business days following the relevant allotment of Shares.

The above dates are indicative only and are subject to change. The Company reserves the right to vary the dates and times of this Round, including to close this Round early, extend this Round or accept late Applications, without notifying any recipient of this IM or any Applicants. Applicants are encouraged to submit their Applications and Subscription Amount as early as possible.

### 1.3 USE OF PROCEEDS

Funds raised under this IM will be applied towards the costs associated with each of the following:

- continuing studies to validate the accuracy and repeatability of software product;
- making FDA submissions of core Software;
- expanding the US office, with a focus on building market opportunity in that geography; and
- providing working capital to meet ongoing operational costs of the Company.

All advisory fees and costs and expenses arising in respect of this IM will be paid by the Company from its existing financial resources.

### 1.4 NO UNDERWRITING OR LISTING

The Round is not underwritten.

4Dx Limited is not listed on any stock exchange.

### 1.5 ALLOCATION AND ALLOTMENT POLICY

It is currently expected that certain shareholders, directors and employees of the Company will be permitted to participate in this Round.

The Company reserves the right in its absolute discretion to not issue Shares to Applicants under this Round and may reject any Application or allocate a lesser number of Shares than those applied for at its absolute discretion.

Application Monies paid by an Applicant will be held by the Company on trust for that Applicant until the Shares applied for by that Applicant are issued. If an Application is rejected the relevant Application Monies will be refunded as soon as practicable, without interest.

### 1.6 DIVIDEND POLICY

No dividends have been declared by the Company to date. The Company is not in a position to predict when it will be in a position to pay a dividend, if at all, as its financial resources will be needed for product development, marketing, approvals and administration.

Any future dividend policy and payment will be subject to the Company's ability to meet any of its cash funding requirements for growth, after taking into account financial, capital and trading requirements at that time.

### 1.7 PRIVACY

In completing the application form, Applicants will be required to provide certain personal information to the Company (e.g. name, address, contact details). The Company will collect, hold and use any personal information to assess Applications and for general administration purposes. Personal information may be disclosed by the Company to its agents and service providers on the basis that such information is dealt with in accordance with the Privacy Act 1988.

Applicants are entitled to gain access to any of their personal information held by, or on behalf of, the Company, by contacting the Company. Applicants should notify the Company of any changes to their personal information over time.

### 1.8 HOW TO APPLY FOR SHARES

4Dx enables the next generation of lung disease diagnosis, treatment and pharmaceutical development. Its cutting edge technology, ease of implementation and innovative approach will change the way lung disease is managed across the globe. We are excited for the future and hope to see you share this journey with us.

To participate in this investment opportunity\*, you must:

1. Complete an application for ordinary shares
2. Make payment for the shares by EFT or cheque

To request a personal invitation to apply for ordinary shares in the capital of 4Dx Limited, or to continue this conversation with us, please email 4Dx at [offers@4Dx.com](mailto:offers@4Dx.com).

Or contact:

Julian Sutton  
Director  
+61 427 717 210  
[offers@4Dx.com](mailto:offers@4Dx.com)

We look forward to hearing from you.

*\*The full terms and conditions of subscription are listed in the application.*

*Acceptance of applications are subject to approval by the Board and conditional of minimum parcel size and substantiation of investor status.*



## **2. COMPANY OVERVIEW**



## 2. COMPANY OVERVIEW

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### 2.1 CURRENT CAPITAL STRUCTURE

The issued capital of the Company as at the start of this Round:

CLASS OF SECURITY	NUMBER OF SECURITIES
Ordinary Shares	114 Million

The Company has established an Employee Equity Plan (EEP) to attract, retain and motivate employees (refer to section 5.7).

### 2.2 BACKGROUND

Andreas Fouras first conceptualised a novel four-dimensional X-ray imaging technology to study the function of the breathing lungs in 2005. He developed the subsequent technology of the 4DxV platform in the years following with his research group, the Laboratory for Dynamic Imaging at Monash University, Melbourne, Australia.

Having raised over AUD\$10 million in research funding from agencies including Australia's National Health & Medical Research Council (NHMRC), the Australian Research Council (ARC) and the American Asthma Foundation, Andreas, his collaborators and his research team successfully translated the technology into the laboratory where it could be developed for clinical use.

4Dx was incorporated in December 2012 to commercialise the technology and commenced operations in July 2013 with key researchers involved in the technology's research development now engaged with its commercial development.

The technology has been extensively patented, with core patents granted in key jurisdictions including the United States and Australia. The technology has been proven through published preclinical studies over the past 10 years.

4Dx commenced with a prospective study in 2016. 4Dx is at advanced stages of planning for three additional prospective clinical studies.

## 2.3 KEY MILESTONES IN THE HISTORY OF 4Dx

**May-05**

Andreas Fouras travels to SPring8 synchrotron (Japan) and conceptualises 4D imaging using X-rays (later to become 4DxV).

**May-08**

Very early 4DxV (developmental) software technology first applied to imaging of breathing lungs.

**Sep-09**

First patent is filed to protect 4DxV.

**Jul-10**

Andreas Fouras and colleagues are the first Australian research team to receive an American Asthma Foundation Research Grant.

**Dec-11**

Successful synchrotron experiments using 4DxV to study Cystic Fibrosis.

**Aug-12**

Design completed for world-first laboratory-based dynamic lung function imaging platform (Fouras lab at Monash University).

**Dec-12**

Single beam construction of world-first lab-based dynamic lung function imaging platform completed, and successful proof of concept for use of technology without synchrotron radiation (Fouras's Laboratory for Dynamic Imaging at Monash University).

**Jan-13**

Andreas Fouras and colleagues receive the largest NHMRC Development Grant awarded (at that time), to commercialise functional lung imaging technology.

**Apr-13**

Team constructs AUD\$2M Advanced X-ray Facility to perform research to develop 4DxV.

**Jun-13**

4Dx secures a global exclusive license from Monash University for use of patents.

**Jul-13**

4Dx commences operations.

**AUD\$0.10 per share\***

**Dec-13**

4Dx receives payment for first commercial sale; Conducts imaging experiments using prototype 4DxV Pre-human scanner for Cystic Fibrosis lung disease research.

**May-14**

Presentation of 4DxV related research at the American Thoracic Society 2014 International Conference.

**Oct-14**

Human feasibility study with existing hospital equipment confirms software application with fluoroscopy, proving ability to apply technology in hospital environment.

**Feb-15**

Initiated first clinical 4DxV in-human studies through Institutional Review Board (IRB) application at leading University affiliated hospital.

**AUD\$0.27 per share\***

**Jul-15**

Clinical Advisory Board (CAB) formed bringing together key opinion leaders across radio-oncology and respiratory diagnostics.

**Aug-15**

Partial relocation of 4Dx management team to the US.

**Sep-15**

Commercial collaboration agreement with first major US hospital.

**Jan-16**

Commercial collaboration agreement with second major US hospital.

**AUD\$0.3125 per share\***

Series A Wholesale Capital Raise AUD\$4M Opened. (Later closed over subscribed).

**Feb-16**

Commercial collaboration agreement with third major US hospital.

**Apr-16**

Conversion from Australian proprietary company to unlisted public company limited by shares.

**Jun-16**

Initial OIS lodged with ASIC, and retail fundraising round opened. (Later closed over subscribed).

**Aug-16**

First major purchase order received for a preclinical scanner (US\$600,000) from Cedars-Sinai Medical Center.

**Dec-16**

AUD\$1m Victorian Government Future Industries Fund Sector Growth Program granted to Hydrix Services Pty Ltd, 4Dx and Monash University consortium, for 4Dx Pre-clinical scanner project.

**Mar-17**

Released preliminary clinical study data for core respiratory diagnostics product at the The 2017 International Workshop on Pulmonary Imaging at the University of Pennsylvania.

**AUD\$0.3700 per share\***

**Apr-17**

Agreement with major US hospital for paid clinical study.

**Aug-17**

Decision to withdraw 510(k) submission to FDA for radiotherapy product, to focus available resources in gaining FDA clearance for 4DxV's core product in the field of respiratory diagnostics, to streamline 4DxV's path to market.

**Sep-17**

All of Monash University's intellectual property relating to the Company's 4DxV technology has been assigned to 4Dx Limited.

**Jan - 18**

4Dx submitted its FDA 510(k) regulatory pre-submission in January on its first respiratory product.

**Mar - 18**

4Dx met with the FDA in March in order to receive feedback on the pre-submission.

**Apr - 18**

FDA reviewed and accepted 4Dx prepared minutes to the official administrative record. Importantly, the two outcomes clarified in the minutes were that 4Dx has a 510(k) pathway to FDA clearance with a viable predicate device, and how 4Dx can successfully gain clearance with a relatively modest sized clinical study.

**May-18**

4Dx attended this year's ATS Conference held May 18-23 in San Diego. 4Dx received strong engagement from visitors with quality collaboration interest shown from targeted organisations.

**June - 18**

Second order for a preclinical scanner (US\$600,000) from The Cleveland Clinic. Australian National Imaging Facility commits to the establishment of 4Dx dedicated research eco-system in Adelaide (AUD\$1m+).

*\*4Dx completed a 1000:0 share split in October 2016. Original share prices of AUD\$100.00, AUD\$270.00 and AUD\$312.50 have been converted pro rata to an effective share price of \$0.10, \$0.27 and \$0.3125 respectively.*

## 2.4 BUSINESS OVERVIEW

### INTRODUCTION

4Dx is a software technology company founded to create a step change in the capacity of physicians to diagnose and manage patients with diseases of the lung.

### WHAT IS 4DXV?

4DxV is a four-dimensional imaging technology that maps regional lung motion and air flow as the lungs breathe. A non-invasive software-based technology, 4DxV allows for a detailed map of lung function to be created unique to each patient. The commercial applications include monitoring and diagnostic applications for diseases including Chronic Obstructive Pulmonary Disease (COPD), Cystic Fibrosis, Lung Cancer and Asthma.

### CURRENT TECHNOLOGIES

In general, current technologies do not provide quantitative functional information but instead deliver static images or insensitive single measures of function. They can also be invasive and expose the patient to significant doses of radiation. The vast majority of respiratory diagnostic procedures fall into one of following three categories of diagnostics currently in the market place.

#### A. SPIROMETRY

First developed in the 1860's, spirometry measures the volume of air blown out of the lungs. It provides a measure of lung function in a single accumulated number. It is accurate but insensitive.

#### B. X-RAY

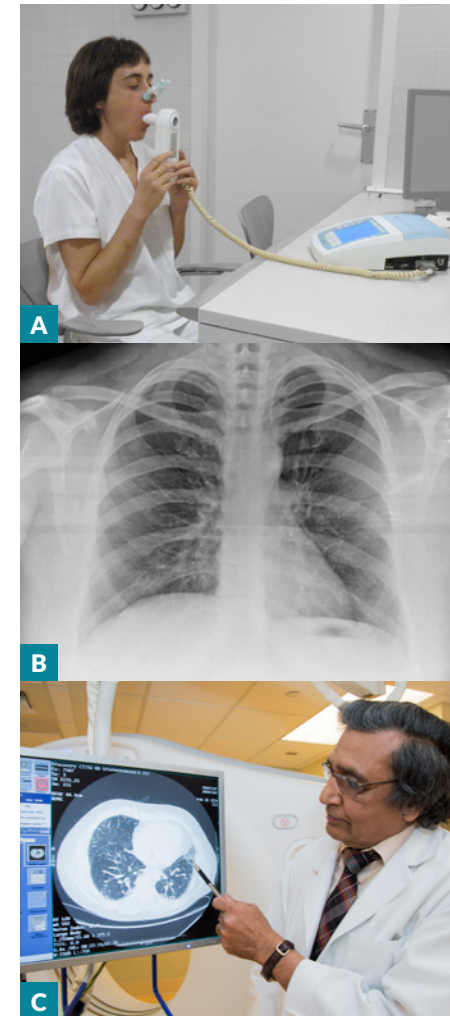
Developed in the 1890's, X-ray is an imaging test that provides two-dimensional visual information on what is happening in different regions of your lung. Although inexpensive, it is not a functional test like spirometry, and it is not as sensitive as a CT.

#### C. COMPUTED TOMOGRAPHY (CT)

The current gold standard technology is CT, which was invented in the 1970's. CT is sensitive but expensive and delivers a significant dose of radiation (about 100x the radiation of a chest X-ray).

4Dx seeks to provide a single platform diagnostic technology with the advantages of each competing technology: the functional insight of spirometry, a dose and cost comparable to X-ray with the resolution of CT.

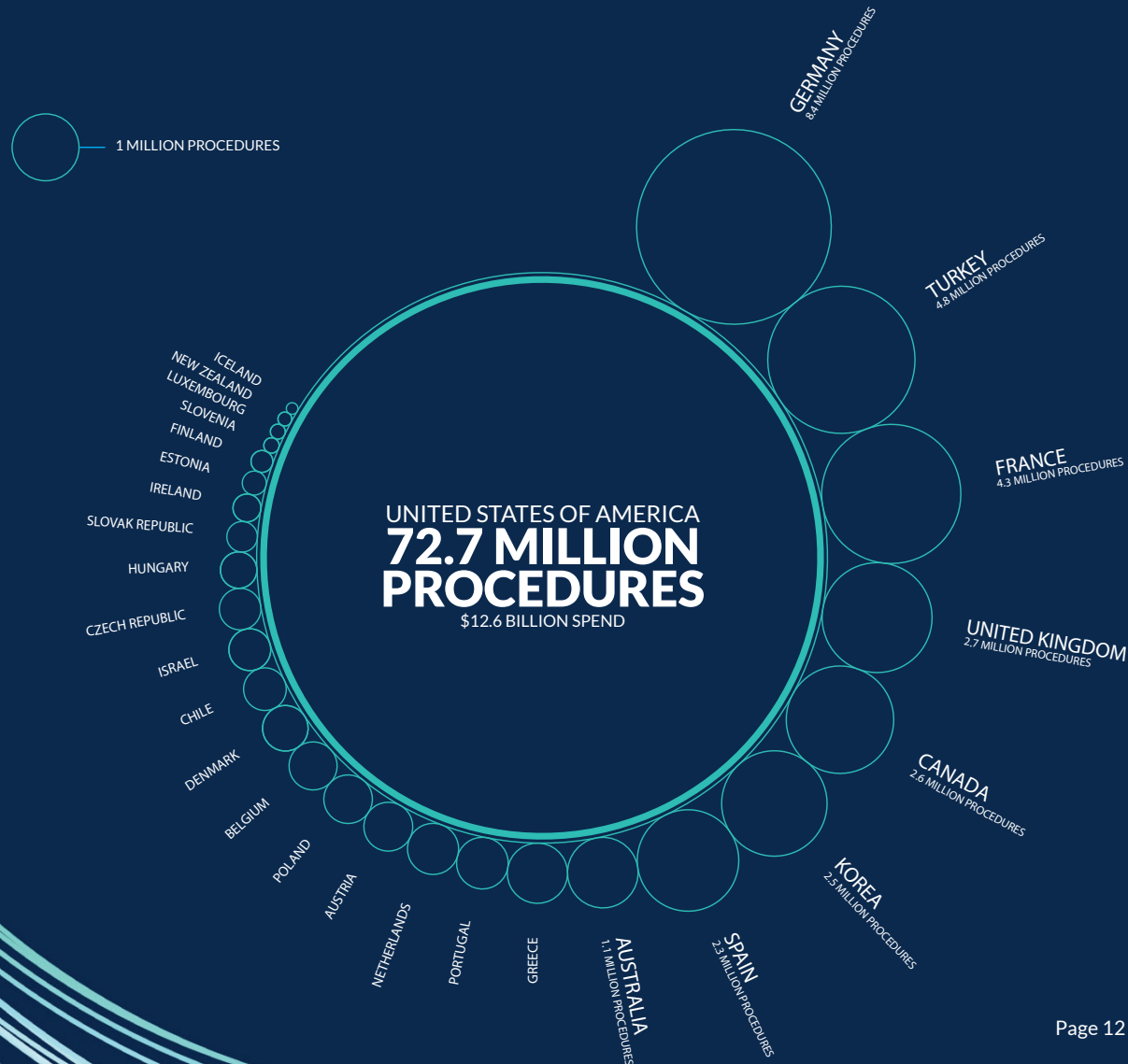
FURTHER DETAILS ON COMPETING TECHNOLOGY CAN BE FOUND IN SECTION 2.6.



A. Spirometry, B. X-ray, C. Computed Tomography (CT)

# RESPIRATORY DIAGNOSTICS PROCEDURES PERFORMED EACH YEAR

162 MILLION PROCEDURES IN SELECTED OECD COUNTRIES EACH YEAR



COUNTRY	#PROCEDURES	SPEND - \$
United States	72,776,294	\$12,588,684,937
Germany	8,465,949	\$870,492,277
Turkey	4,838,450	\$442,407,104
France	4,323,547	\$322,303,553
United Kingdom	2,700,391	\$258,116,320
Canada	2,579,602	\$221,399,328
Korea	2,484,025	\$225,182,693
Spain	2,301,530	\$173,927,376
Australia	1,113,469	\$93,807,016
Greece	809,269	\$66,368,671
Portugal	595,513	\$47,847,955
Austria	533,487	\$46,859,323
Poland	527,770	\$46,573,231
Belgium	515,452	\$51,784,083
Denmark	464,178	\$42,925,631
Chile	407,184	\$32,121,636
Israel	392,094	\$34,022,119
Czech Republic	387,360	\$35,327,922
Hungary	296,523	\$24,331,552
Slovak Republic	209,174	\$17,597,884
Ireland	173,651	\$15,679,863
Estonia	129,006	\$10,098,781
Finland	106,762	\$10,370,032
Slovenia	52,873	\$4,492,119
Luxembourg	50,357	\$4,403,693
Iceland	30,324	\$2,524,687

Data for USA, Germany, France, U.K and Spain (over 90% of total spend) Sourced from Market Assessment for Respiratory Diagnostics, Frost & Sullivan 2014.

Remaining markets sourced from a combination of above reference and Health at a Glance 2013: OECD Indicators, OECD 2013.

## THE MARKET

4Dx intends to enter the market initially in the United States. Currently in the United States, there are over 72 million lung diagnostic procedures performed every year across all respiratory indications at an annual spend of US\$12.6 billion dollars. In addition to this current market demand, there are significant potential growth opportunities for respiratory diagnostics in response to new demand drivers such as preventative lung cancer screening and disease caused by poor air quality of major cities.

4Dx will apply 4DxV technology to the diagnosis and monitoring of common and debilitating respiratory conditions including asthma, COPD, lung cancer and cystic fibrosis.

## PRODUCT PIPELINE

4Dx aims to produce both hardware and software products for commercial sale, with a pipeline of six products currently under development. 4DxV, 4Dx's patented four-dimensional imaging technology, is central to the Company's product families, which comprise software product lines for key respiratory market segments, as well as hardware product lines that support our software offering.

## SOFTWARE PRODUCTS

4Dx aims to produce software as a service (SaaS) products for commercial sale, with a pipeline of three respiratory diagnostic software products currently under development built on 4DxV, 4Dx's patented four-dimensional imaging technology platform.

### PRODUCT ONE: RDX1 (VENTILATION)

The 4Dx Ventilation product provides physicians and patients regional measurements of ventilation at each phase of the breath. Put simply, this product shows which parts of the lungs are receiving air, and which are not, and to what extent. This is a key measurement offering physicians functional data on lung health at unprecedented levels of detail. 4Dx has chosen ventilation as the first market for 4DxV, as management believes it paves the most cost-effective pathway for technological validation of the 4DxV platform, while simultaneously providing an opportunity for a rapid path to market, to ensure financial sustainability of the Company and to reduce the risk to investors. This product has been validated in small animals and has been in human trials for over a year.

### PRODUCT TWO: RDX2 (AIRWAY-FLOW)

Airway-flow provides measurement of how much air flows through each airway in a patient's lung at each phase of the breath. 4Dx research has shown that this key metric is likely to be particularly useful for diseases such as asthma – which causes certain airways to constrict reducing airflow. The technology behind this product has been validated in small animals and can be readily added to RDX1 (Ventilation), enabling increased market penetration.

### PRODUCT THREE: RDX3 (VASCULATURE)

4Dx has developed a novel, noninvasive imaging technique that provides regional measurements of the pulmonary vasculature – the blood vessels which carry oxygen from the lungs to the heart – enabling the evaluation of lung health through the blood network instead of through airflow and ventilation as measured by the other 4Dx products, RDX1 and RDX2. Vascular analysis can be provided visually, numerically or both. This technique is important to physicians, because it provides an often-required measure while eliminating the need for contrast agents – known to be a major cause of kidney failure.

RDX products are being designed to be fully compatible with existing hospital equipment, alleviating the requirement for the customer to purchase new imaging equipment in order to utilise our SaaS products. This business model also enables 4Dx to deliver its technology at low cost and to scale quickly to meet demand.

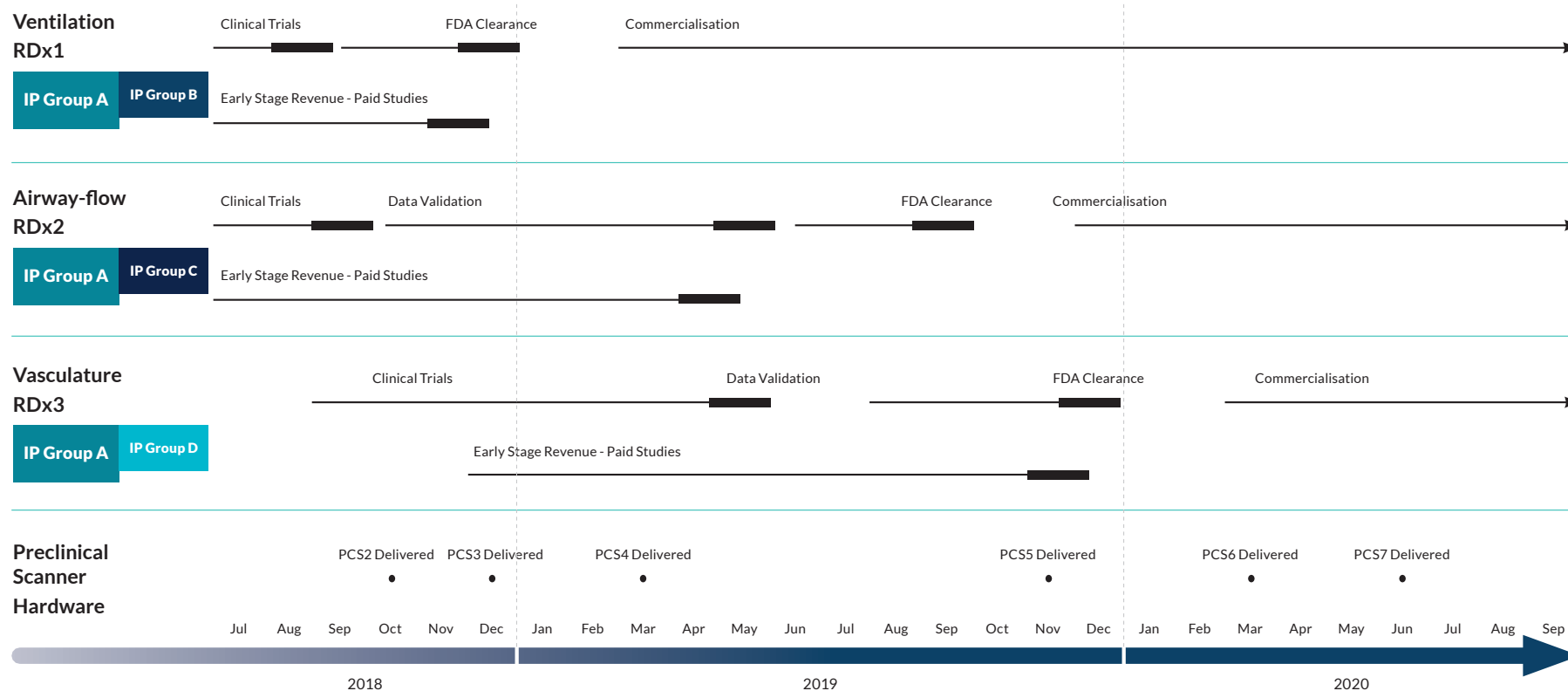
## DEDICATED HARDWARE PRODUCTS

4Dx has two hardware products in its product pipeline. The most mature of these is a small animal ventilator that was developed out of necessity to support internal R&D activities. While the small animal ventilator is a product in its own right, it is also a key sub-system in 4Dx's primary hardware product, the dedicated Preclinical Scanner (mouse scanner). The Preclinical Scanner has also directly evolved from 4Dx R&D activities and supports the 4DxV platform by seamlessly integrating the 4Dx software technology into a dedicated piece of machinery located at opinion-leading sites. This product is bringing significant early stage revenue and expands the customer base for 4Dx software products.

In FY17, 4Dx secured an agreement with Cedars Sinai Medical Center in Los Angeles to procure an instance of this hardware to support R&D activities within the hospital, as well as an AUD\$1M Victorian Government Future Industries Fund Sector Growth Program award, under a Consortium Agreement with Hydrix Services Pty Ltd and Monash University, to facilitate a production line for Preclinical Scanner manufacturing. 4Dx completed construction of the first unit in August 2017, ahead of compliance testing that will clear the scanner for import into the USA. The long-term hardware pipeline includes a dedicated Human Scanner.



## 4Dx PLANNED SOFTWARE AND HARDWARE DEVELOPMENT MILESTONES



IP GROUP	CAPABILITY	PRODUCTS	PATENT FAMILIES
A	Platform	Platform (all)	1,5,9,10
B	Ventilation	RDx1	1,5
C	Airway-flow	RDx2	1,10
D	Vasculature	RDx3	6,7

## GO TO MARKET STRATEGY

The 4Dx 'go to market' strategy is being executed through a three-stage process.

### A. WIN THE SUPPORT OF KEY OPINION LEADERS (KOL'S)

4Dx aims to have the technology tested and utility verified by key opinion leaders and to invest in clinical studies that quickly and cost-effectively gather the data required. 4Dx is engaged with three of the top thirty hospitals in the USA, with an ambitious target to have formal engagement with ten of those institutions by the end of 2018.

### B. GENERATE EARLY REVENUE

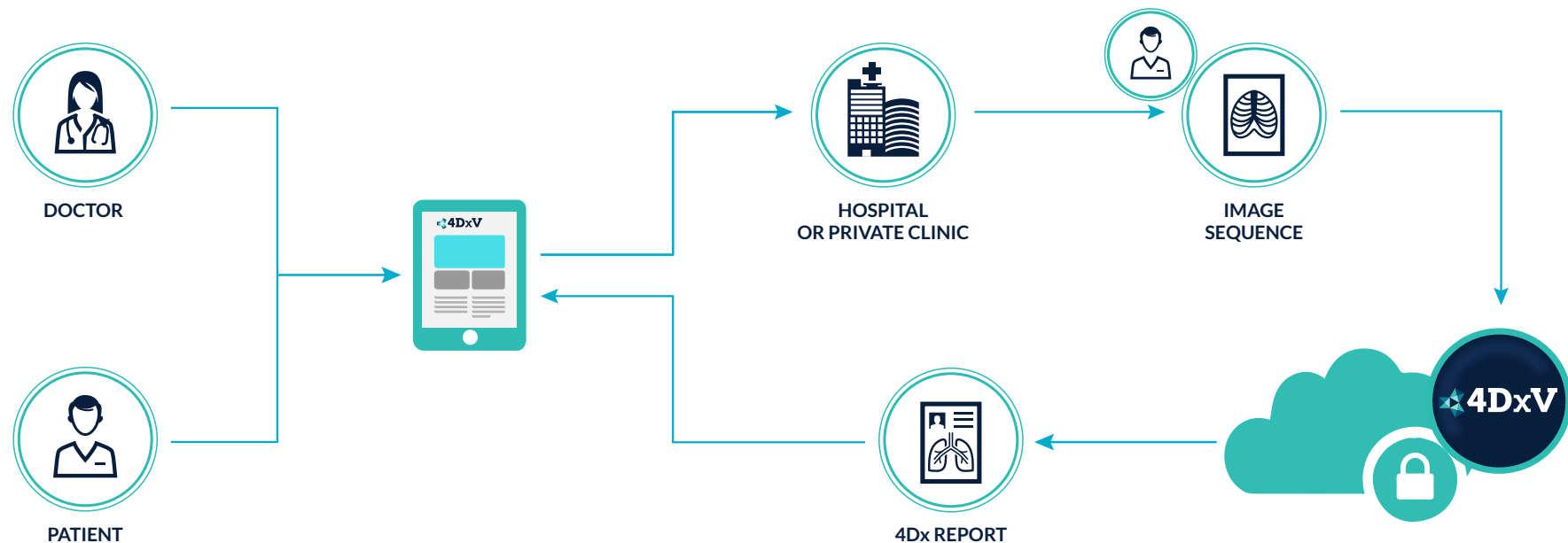
4Dx will focus on hardware sales (especially the Preclinical Scanner) to build KOL support and deliver early hardware and associated software (SaaS) revenue. On top of this contracted, long-term preclinical SaaS revenue, 4Dx will also generate early stage revenue from paid studies to support KOL collaborators.

## C. PENETRATE MARKET

4Dx is following an established MedTech methodology for commercialisation that addresses the following go to market key success factors:

- Obtaining regulatory clearance (FDA 510(k)) in the US market for core software products in the respiratory diagnostic space
- Working with insurers to gain reimbursement codes, allowing price sensitive customers to gain access to 4Dx software products
- Leverage the capacity of the SaaS business model to rapidly scale product delivery to meet market demand
- Enable rapid uptake of a software only offering without the customer requirement to purchase expensive equipment by using existing hospital infrastructure
- Partnering with patient advocacy groups in the US including the American Asthma Foundation (AAF) and the Cystic Fibrosis Foundation to raise awareness and support of 4Dx technology and the positive impact it can have on respiratory health.

## SAAS BUSINESS MODEL



## DIRECTORS AND OFFICERS



### ANDREAS FOURAS

#### Chairman and CEO

- PhD – Monash University
- Master of Engineering Science (Research) – Monash University
- Bachelor of Engineering – University of Queensland
- Australian Davos Connection Australian Leadership Award 2013
- MAICD, Member, Australian Institute of Company Directors

Andreas conceived and developed numerous technologies, including 4DxV, during his time as a researcher at Monash University. Completing a Masters and PhD, and then rapidly rising to the position of Professor and director of the Laboratory for Dynamic Imaging, Andreas was recognised by various accolades from a wide range of premier research bodies including the National Health and Medical Research Council and the American Asthma Foundation.

Andreas was also well respected as a leader in this field as evidenced by an ADC Australian Leadership Award (2013), and through his service on the Executive of the Australian Academy of Science EMCR Forum. Andreas served as an infantry officer in the Australian Army Reserve.

Andreas founded 4Dx in 2012 and has left other interests behind to fully dedicate himself to his roles at 4Dx.



### JOHN LIVINGSTON

#### Non-Executive Director

- BApps Sci (Med Rad), Medical Radiation - RMIT University
- GAICD, Graduate Member, Australian Institute of Company Directors

Appointed non-executive director March 2018. Chair of the People & Remuneration Committee.

Mr John Livingston was previously one of the founding partners of Lake Imaging, subsequently becoming part of Integral Diagnostics Ltd where John was CEO and Managing Director. John has a special interest in radiology efficiency and the enhancement of Radiological experiences. He is considered an industry leader in the implementation of PACS and RIS in a radiology setting. John was awarded the AGFA International award for Development of Digital Imaging Solutions in 2005. He has lectured in Australia and abroad on the digital radiology environment, as well as business strategies and systems within the commercial sector. John has considerable commercial experience, having worked with the team at Lake Imaging and later Integral Diagnostics through acquisitions and the establishment of Greenfield facilities across Australia. During his career at Integral Diagnostics, John lead the group through Private Equity investment with Advent Partners in 2014 and in 2015 John worked with Advent to list Integral Diagnostics on the Australian Stock Exchange. John is a former director of VicWest Community Telco and United Way; a current director at Comrad Medical Systems and Ballarat Clarendon College (Chair); a member of The Australian Institute of Radiography and a graduate member of the AICD



### HEATH LEE

#### Non-Executive Director

- Monash University – Bachelor of Economics (Accounting Major)
- Institute of Chartered Accountants Australia – Chartered Accountant
- Graduate Diploma of Applied Finance (Finsia)
- Fellow of the Financial Services Institute of Australasia (Finsia)
- GAICD, Graduate Member, Australian Institute of Company Directors

Appointed non-executive director July 2016. Chair of the Finance Committee.

Heath brings significant business acumen to 4Dx. Heath gained his Chartered Accountant qualification working with KPMG before moving into investment banking with BZW (Barclay's bank) which was later acquired by ABN AMRO. As a merger and acquisition professional Heath advised the Federal Government of Australia on the \$4 billion Phase 1&2 privatisation of Australia's airports and CSR on its \$6.7 billion demerger of Rinker Materials. With extensive experience advising companies in relation to trade sales, mergers & acquisitions and company strategy, Heath left ABN AMRO to launch his own business. Over 9 years Heath as founder and CEO built OCIS from a startup contact centre and market research company with 10 staff in Melbourne to a business operating in Australia, New Zealand and Fiji with 637 staff servicing clients such as Optus, The Nielsen Company, Seek.com, Virgin Mobile and the New Zealand Government before the business was sold in 2013.

As an active investor, advisor and non-executive board director, Heath holds a degree in Economics from Monash University and a Graduate Diploma in Applied Finance from Finsia. Heath is also a Fellow of the Financial Services Institute of Australasia and a member of the Australian Institute of Company Directors.



### DR ROBERT A. FIGLIN

#### Non-Executive Director

- MD, Doctor of Medicine – Medical College of Pennsylvania
- FACP, Fellow of the American College of Physicians (ACP)

Appointed non-executive director December 2016.

Robert A. Figlin, MD, FACP, is the Steven Spielberg Family Chair in Hematology Oncology, Professor of Medicine and Biomedical Sciences, Director of the Division of Hematology/Oncology, Deputy Director of the Samuel Oschin Comprehensive Cancer Institute and Deputy Director of Integrated Oncology at Cedars-Sinai Medical Center in Los Angeles, California. Dr. Figlin received his medical degree from the Medical College of Pennsylvania. He completed his residency and chief residency in internal medicine at Cedars Sinai Medical Center and a fellowship in hematology/oncology at the David Geffen School of Medicine at UCLA.

A nationally recognised leader in genitourinary and thoracic oncology, Dr. Figlin brings a wealth of clinical knowledge and medical expertise, critical to 4Dx's commercial success.

Dr. Figlin serves as Editor for Kidney Cancer Journal, and his studies have appeared in Clinical Cancer Research, Journal of Clinical Oncology, New England Journal of Medicine, Lancet, JNCI, Lancet Oncology, and Journal of Urology, among others. He has authored over 350 peer reviewed articles, more than 70 book chapters, and has published as editor multiple books in kidney cancer. He is the Editor of the recently released book by Springer Science entitled, Renal Cell Carcinoma: Translational Biology, Personalized Medicine, and Novel Therapeutic Targets.



### **JULIAN SUTTON**

#### **Non-Executive Director**

- Bachelor of Science (Mathematics) – Monash University
- CFA Institute, CFA Charterholder

Appointed non-executive director September 2017. Chair of the Investment Committee, and member of the Due Diligence and People & Remuneration Committees.

Julian started his career in 1995 as an actuarial analyst for Towers Perrin in Melbourne where he consulted to some of Australia's largest superannuation funds. After three years in this role, he transferred with Towers Perrin to Brussels and then London, where he worked predominantly in an asset consulting capacity.

In 2002, Julian joined Credit Suisse Asset Management in London as an assistant portfolio manager in their Multi-Manager team. Driven by strong performance, the team grew assets under management ten-fold from GBP50m to GBP500m over the following two years.

In 2004, Julian joined Schrodgers Investment Management as a Senior Portfolio Manager in the Multi-Asset team, responsible for the management of a suite of investment funds with assets under management in excess of USD1bn. These funds were invested on a global basis and had exposure to a broad range of asset classes including private equity, hedge funds, property, commodities, equities, bonds and cash.

After seven years with Schrodgers, Julian returned to Australia with entrepreneurial ambitions. Using the contacts he made during his time in London, Julian established a sales and marketing business that helps best-in-class international fund management companies establish a presence in the Australian and New Zealand market. Currently, in partnership with Copia Investment Partners, Julian is responsible for the sales and marketing function of Odey Asset Management in the region.



### **LUSIA GUTHRIE**

#### **Non-Executive Director**

- Master of Science (Science and Technology Commercialisation) – University of Adelaide
- Bachelor of Applied Science (Medical Technology) – University of South Australia
- Member of the Australian Institute of Company Directors

Appointed non-executive director December 2017. Chair of the Regulatory & Quality Committee.

With over 35 years in the pharmaceutical and bioscience industries, Lusia Guthrie is an experienced executive and med-tech entrepreneur, with strong leadership skills and international industry networks. She started her career as a Medical Laboratory Scientist before joining the Manufacturing Division of pharmaceutical company FH Faulding & Co where she attained the position of Director of Operations. Lusia then went on to co-found medical technology innovation company LBT Innovations Limited (ASX: LBT) where she served as Chief Executive Officer and Managing Director until 2016.

Lusia has a passion and proven track record in bringing innovative products to global markets, embracing the entire process from company formation, capital raising and concept development to product launch. She has particular experience and ongoing interest in the development and commercialisation of new healthcare products that embrace automation, robotics, machine learning and artificial intelligence.





### CHARLENE STAHR

#### Company Secretary, Operations Manager

- Master of Engineering Science (Research) – Monash University
- Bachelor of Engineering (Mechanical) – Monash University
- Bachelor of Technology (Aerospace) – Monash University
- GIA(Cert), Certificated Member, Governance Institute of Australia
- MAICD, Member, Australian Institute of Company Directors

Appointed Company Secretary March 2016. Public Officer, Chair of the Due Diligence Committee, member of the Finance Committee.

Charlene has 10 years' experience in the engineering and biomedical research sectors, where she developed strong technical and business skills across corporate administration, finance and accounting, risk management, regulatory affairs and grant writing. Her 7 years at Monash University saw core involvement in international research programs and technology development, leading to publication of her own research and patented IP. Charlene has extensive experience in administration management and auditing, with a strong focus on compliance and governance, previously holding a number of official roles at the university. Charlene has recently completed a Master of Engineering Science, which demonstrates the application of 4DxV's precursor preclinical research technology to a lung disease model. Charlene has commenced a Graduate Diploma of Applied Corporate Governance with the Governance Institute of Australia.

### CLINICAL ADVISOR



### PROFESSOR GREGORY SNELL

- MBBS - Bachelor of Medicine, Bachelor of Surgery
- FRACP - Fellow the Royal Australian College of Physicians
- MD - Doctor of Medicine
- OAM - Order of Australia Medal

Greg is currently the Medical Head of the Lung Transplant Service at the Alfred Hospital and Monash University. After completing his initial medical training at University of Melbourne, he completed the Will Rogers Clinical Fellowship in Lung Transplantation at the University of Toronto, Canada in 1992. He has been involved in the implementation of new techniques and technologies in lung transplantation, in particular the use of Donation-after-circulatory-death (DCD) lungs.

## SENIOR LEADERSHIP TEAM



### PAUL COOKE

#### Senior Vice President & Vice President of Sales and Marketing

- General Manager, Notting Hill Devices Pty Ltd
- Graduate Diploma, Business – RMIT
- Bachelor Arts (Military Studies) – University of NSW/RMC Duntroon
- MAICD, Member, Australian Institute of Company Directors

Paul has more than 30 years of commercial expertise in business development, marketing, international commercialisation and market entry strategies. Paul's previous executive roles include Group CEO of Icon Agency Group, Director of The Fuel Agency, and Vice President of R.L. Polk. He currently holds non-executive directorships with PTSD Australia/New Zealand and an Executive Directorship of the Communications firm Effectus Marketing Group.

Paul's experience in management consulting, data analytics, software development and marketing is leveraged by the 4Dx executive team to help frame the Company's global communications messaging and assist in the international market entry strategy.



### KAREN SIU

#### Vice President of Engineering

- PhD – Monash University
- Bachelor of Science (Hons) – Monash University
- MAIP, Member, Australian Institute of Physics
- MInstP, Member, Institute of Physics (UK)

Karen has over 15 years' experience working in multidisciplinary research and research and development management. After obtaining her PhD from Monash University in 2003 in X-ray Physics, Karen's post-doctoral work, as an Australian Synchrotron Research Program Fellow, explored the use of synchrotrons (highly intense x-ray sources) to studying cancers of the brain and breast. Subsequent research focused on synchrotron imaging for understanding the origins and development of lung disease, in particular cystic fibrosis and asthma. Karen established multidisciplinary national and international research collaborations and attracted significant research funding in support of these efforts. She also has a keen interest in enabling uptake of novel technologies, having worked in this capacity at both Monash Biomedical Imaging and the Australian Synchrotron.

As Vice President of Engineering at 4Dx, Karen now leads the Company's research and development teams, providing a structured management program for these highly technical teams to enable performance on time and on budget.



### **R. AIDAN JAMISON**

#### **Vice President of Technology**

- Master of Laws (MPLaw), Intellectual Property Law – Melbourne University
- PhD – Monash University
- Bachelor of Engineering (Mechanical) – Monash University
- Registered Patent Attorney (Australia)
- IPTA, Member, Institute of Patent and Trade Mark Attorneys of Australia

Aidan has 10 years' experience in the biomedical research and intellectual property sectors. He is a registered patent attorney and completed his Masters of Intellectual Property Law while finishing a PhD in Biomedical Engineering. As an author on the first 4DxV journal publications, and as a former employee of one of the largest intellectual property firms in Australia, Aidan brings a wealth of experience to 4Dx.

As Commercialisation Manager, Aidan drives the Company's IP strategy with an in-depth knowledge of both 4Dx's technology and the IP landscape. As Production Manager, Aidan leads the Company's production team to develop and deliver high quality products to our customers.



### **MICHAEL CURTIS**

#### **Chief Software Architect**

- PhD – Monash University
- Bachelor of Mechatronics, Robotics and Automation Engineering – University of Canterbury

Michael joined 4Dx in 2013. In addition to his core expertise in software engineering, Michael also brings a breadth of knowledge in hardware (mechanical and electronic design) to his role. After undergraduate studies at the University of Canterbury, Michael obtained his PhD from Monash University, examining real time studies of cell mechanics in a fluidic environment.

Michael leads 4Dx's Software team which is responsible for the development of the Company's products to highly regulated medical device standards.



### **CHAMINDA RAJEEV SAMARAGE**

#### **Director of Research**

- PhD – Monash University
- Bachelor of Engineering (Mechanical) – Monash University

Rajeev brings to 4Dx substantial expertise in analysis of biological images, having developed methods to derive quantitative measures of physiological force and motion in cardiovascular, neurological and pulmonary systems. He obtained his PhD in Biomedical Engineering from Monash University in 2016, and this work led to an Outstanding Paper Award and a special editorial in the prestigious journal Developmental Cell.

Rajeev leads 4Dx's Research team, developing the methodologies underlying the Company's core products. As part of this role, Rajeev ensures 4Dx's products are clinically relevant through clinical and preclinical studies.

## 2.5 INTELLECTUAL PROPERTY

4Dx has built a strong intellectual property (IP) portfolio across ten patent families, with filings made in eight. A granted patent confers exclusive rights to exploit, and to authorise other persons to exploit, the invention in respect of which it is granted, during the term of the patent, in a specific territory.

Eight national phase patents have been granted within our 4DxV core patent family, including three in the USA. If all twelve applications within our core patent family are successful this will provide exclusive rights to our technology in the USA, Japan, India, Europe (potentially all 28 member states), Australia, New Zealand, Canada and Singapore.

Across the other nine patent families a further two patents have been granted, seventeen are pending, and two are at an advanced stage of development. Full details for all patents are found in the table below.

As the 4Dx technology will be deployed through a SaaS business model, intellectual property, and more specifically patents, is a key asset to our business.

FAMILY	DESCRIPTION	JURISDICTIONS, PATENT NUMBER, STATUS
1	<b>4DxV (Core Patent)</b> A new approach for the use of X-ray imaging to deliver 3D and 4D (time resolved 3D) measurement of motion and structure, based on the concepts of holography and computed tomography. This system has direct application to the respiratory and cardiovascular systems where it can deliver highly sensitive and highly accurate 3D and 4D (time resolved 3D) measures of function with significantly lower doses than traditional CT. Such a system may have applicability across the full spectrum from research using pre-clinical models, to clinical trials of respiratory medicines and full clinical use as a tool for screening, diagnosis and surveillance.	1. Australia, 2010295229, granted 2. USA, 9,036,887, granted 3. USA, 9,025,849, granted 4. USA, 9,370,334, granted 5. NZ, 599301, granted 6. Singapore, 2012018305, granted 7. Japan, 2014-121569, granted 8. Japan, 2012-529063, granted 9. India, 3226/CHENP/2012 A, pending 10. Canada, 2,790,588, pending 11. Europe, 10816486.2, pending 12. Europe, 14159245.1, pending
2	<b>Dynamic Lung Imaging Forced Oscillation</b> The invention allows conventional lung testing techniques such as the forced oscillation test to be combined with 4Dx's lung imaging technology to provide regional functional measurements across the entire lung.	13. USA, 15/190,728, pending 14. Europe, 13777686.0, pending
3	<b>Heart Imaging</b> A method to utilise lung image data to gain an increased understanding of cardiac function. Building on our 4DxV Core Patent, this patent may make available (without the requirement for additional diagnostics - and concomitant cost and/or X-ray dose) significant imaging data on cardiac function. The method uses direct imaging of the lung to measure the motion of the heart. This may allow for new insights into the behaviour of the heart and lung as intimately connected organs.	15. Australia, 2012323829, pending 16. USA, 9,576,354, granted

4	<b>Trapping and Analysing Cells</b> This patent describes a device capable of measuring stiffness properties of individual cells accurately, rapidly, and without physical contact. This device has the potential to deliver impact research into the biomechanics of cells. Commercial use of this technology is confidential.	17. Australia, 2012245075, granted 18. Australia, 2017201561, pending 19. USA, 14/112,914, pending
5	<b>Low Dose Scan</b> This patent describes a method for significantly reducing the radiation delivered to a patient during a scan, in addition to enabling more efficient analysis by the 4DxV algorithm.	20. Australia, 2015246630, pending 21. Australia, 2017101313, pending 22. USA, 15/300,367, pending 23. Europe, 1577984.7, pending 24. Japan, 100105924, pending
6	<b>Pulmonary Vascular Imaging</b> This patent describes a method for imaging and quantifying the pulmonary vasculature. Further details are confidential at this time.	25. PCT application (PCT/AUD2017/000054) with provisional protection in all 189 WIPO states
7	<b>Pulmonary Vascular Imaging</b> This patent describes a method for imaging and quantifying the pulmonary vasculature. Further details are confidential at this time.	26. Provisional patent (US 62/464,540) with provisional protection in all 189 WIPO states
8	<b>Tissue Tracking</b> This patent describes a method of quantifying tissue motion. Further details are confidential at this time.	27. Provisional patent (AU 2017900695) with provisional protection in all 189 WIPO states
9	<b>Novel Implementation</b> 4Dx is currently developing a patent based on a substantive improvement to the core 4DxV algorithm. Further details are confidential at this time.	28. Patent under development
10	<b>Novel Implementation</b> 4Dx is currently developing a patent based in the space of our planned second-generation respiratory diagnostic product. Further details are confidential at this time.	29. Patent under development

4Dx classifies its IP portfolio against product lines through the concept of IP groups. At this time, 4Dx has grouped IP into four groups: either the product platform or to one of the three specific products in our product pipeline (see section 2.4).

IP GROUP	CAPABILITY	PRODUCTS	PATENT FAMILIES
A	Platform	Platform (all)	1,5,9,10
B	Ventilation	RDx1	1,5
C	Airway-flow	RDx 2	1,10
D	Vasculature	RDx3	6,7

## 2.6 COMPETING TECHNOLOGY OVERVIEW

In this section, we detail competing technology in mainstream clinical usage. There are a number of other technologies, such as Forced Oscillation Technique (FOT), Electrical Impedance Tomography (EIT) and Multi Breath Washouts. However, none of those technologies are reimbursed in major jurisdictions such as Australia<sup>1</sup> and are not considered to be mainstream.

### PHYSICAL EXAMINATION / STETHOSCOPE

Diagnosis of respiratory disease starts with a physical examination. A typical physical exam follows a sequence starting with an inspection that may reveal cyanosis (discoloration of the skin due to poor oxygenation of blood), finger clubbing (deformities in fingers associated with lung disease, interstitial lung disease or COPD) or abnormal breathing patterns. The stethoscope is used to listen to the heart and lungs. However, due to limitations in the frequency range perceived by the human ear, the use of the stethoscope is better positioned at detecting abnormal patterns in heart rhythm than lung respiration<sup>2</sup>.

### SPIROMETRY

Spirometry is currently the most widely utilised pulmonary function test and it allows for measures such as forced expiratory volume in 1-second (FEV1) and forced vital capacity (FVC). These parameters aid in differentiating between restrictive and obstructive respiratory diseases. While spirometry is widely accepted, spirometry measures provide no structural information<sup>3</sup>, are effort dependent and insensitive to early disease or subtle changes<sup>4</sup>.

### X-RAY IMAGING

Initial assessment of many clinical indications begins with a chest X-ray radiograph to differentiate between pulmonary or cardiac symptoms. The chest X-ray is a widely available, inexpensive and relatively low dose tool to examine the lungs<sup>5</sup>. Chest X-ray is effective at ruling out major disorders, as it gives a quick visualisation of the lungs where large anomalies can be detected and localised. However, chest X-rays provide a 2D flat image of the still lung and hence do not provide any functional information. Furthermore, significant experience is required by a radiologist to interpret the image where abnormalities are hard to detect<sup>6</sup>.

### COMPUTED TOMOGRAPHY (CT)

CT provides structural information and experienced radiologists are capable of identifying regions of the lung that are poorly aerated<sup>7</sup>, as well as airways affected by mucus plugging<sup>8</sup>. However, measures of lung stiffness and ventilation are not directly available, with key surrogates

being lung aeration<sup>9</sup>. Furthermore, CT scans pose an increased radiation risk to the patient<sup>10</sup>, with radiation effects being more significant in younger patients in comparison to older patients<sup>11</sup>.

### 4DCT

Four-dimensional computed tomography (4DCT) is a specialised variation of CT that captures multiple CT images to deliver a CT movie allowing clinicians to observe organ motion. As a 4DCT is in effect multiple CT's, the radiation dose from this procedure can be a major concern<sup>12</sup>. Clinically, 4DCT is almost exclusively used in the planning of radiation therapy.

### MAGNETIC RESONANCE IMAGING (MRI)

Magnetic resonance imaging (MRI) relies on the use of magnetic field and pulses of radio waves to excite hydrogen atoms in the body. This allows the capture of images of regions abundant in hydrogen in the body such as water and fat. As a result, anatomical regions low in water and fat such as the lungs have been much more challenging to image<sup>13</sup>.

### HYPERPOLARISED GAS MRI

A specialised variation of MRI: hyperpolarised gas MRI; allows for the visualisation of the distribution of inhaled hyperpolarised gases within the lung, enabling the assessment of lung ventilation. Currently, hyperpolarised helium is most commonly used in research settings even though global quantities of helium are very limited and expensive. Hyperpolarised MRI has the ability to assess regional lung function. However, it is restricted to research applications at specialised centres<sup>14</sup> and requires the use of specialist technical hardware further increasing the costs involved<sup>15</sup>.

### POSITRON EMISSION TOMOGRAPHY (PET)

PET is a functional imaging modality that has gained interest for use in radiation diagnostics and radiation therapy treatment planning<sup>16</sup>. PET uses a gamma detector to image and reconstruct a 3D image of the gamma rays emitted by an introduced radionuclide. PET is useful in radiation treatment planning as it detects the location of a tumour due to increased metabolic activity, which is detected by an increase in radionuclide uptake at the site.

However, respiratory motion leads to blurring of the image and loss of signal<sup>17</sup>. Through the use of alternate positron-emitting radionuclide gases, PET has allowed for ventilation perfusion imaging<sup>18</sup> resulting in improved diagnoses of pulmonary emboli. However, increased cost and increased radiobiological burden limit the use of PET in patients<sup>19</sup>.

1. Medicare Benefits Schedule 2016, Commonwealth of Australia
2. Pasterkamp, H. et al. (1997) *American Journal of Respiratory and Critical Care Medicine*, 156, 974-987
3. Gurney, J. W. (1998) *Radiologic Clinics of North America*, 36, 15-27
4. Aurora, P. et al. (2005) *American Journal of Respiratory and Critical Care Medicine*, 171, 249-256
5. Bansal, G. J. (2006) *Postgraduate Medical Journal*, 82(969), 425-428
6. Cardinale, L. et al. (2012) *Journal of Thoracic Disease*, 4(4), 398-407
7. Reske, A.W. et al. (2011) *Critical Care*, 15(6): R279
8. Roberts, H.R. et al. (2000) *Thorax*, 55: 198-204
9. Gattinoni, L. et al. (2001) *American Journal of Respiratory and Critical Care Medicine*, 164: 1701-1711
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11. Mayo, J.R. et al. (2003) *Radiology*, 228: 15-21
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13. Coxson, H.O. et al. (2009) *American Journal of Respiratory and Critical Care Medicine*, 180: 588-597
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15. Lilburn, D.M.L. et al. (2013) *PLoS One*, 8(8): e73468
16. Mac Manus, M.P. et al. (2012) *Seminars in Nuclear Medicine*, 42(5): 308-19
17. Chen, D.L. and Kinahan, P.E. (2010) *Journal of Magnetic Resonance Imaging*, 32(6): 1409-1420
18. Harris, R.S. et al. (2006) *American Journal of Respiratory and Critical Care Medicine*, 174: 24553
19. Caldarella, C. et al. (2013) *Cancer Management and Research*, 5: 123-131



# **3. FINANCIAL INFORMATION**

### 3.1 FINANCIAL STATEMENTS

4Dx Limited is an Australian public unlisted company limited by shares, and is a disclosing entity as defined by Section 111AC of the Corporations Act. Pursuant to the Corporations Act, the Company must prepare half-yearly financial reports and directors' reports, and audited annual financial reports and directors' reports. The Company is subject to Australian Account Standards Board (AASB) Tier 1 reporting requirements.

The Company's appointed auditor is PKF Melbourne. Ernst and Young provides the Company with master tax services, including management accounting, and is appointed as the Company's virtual CFO.

The Company's audited condensed financial report for half-year ended 31 December 2017, consisting of the Company's consolidated financial statements, Directors' declarations, and independent auditor's review, which are set out in 4Dx FY18A Half-Year Financial Report, is available for view in the 4Dx Series B Data Room.

### 3.2 FINANCIAL FORECASTS

This subsection includes simulated forecasts based on financial models that represent the Company's assumptions and expectations in light of currently available information. Section 3.2.1 includes estimates of quarterly operating expenses by type. Section 3.2.2 provides quarterly revenue forecasts EBITDA and corresponding cash positions. Section 3.2.3 provides the 3 year cash flow analysis. Section 3.2.4 provides a sensitivity analysis based on three distinct scenarios (conservative, base and optimistic).

### 3.2.1 USE OF FUNDS

All figures are in Australian Dollars (AUD)

#### QUARTERLY OPERATING COSTS

	FY 18/19				FY 19/20				FY 20/21			
	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21
Go To Market	\$446,207	\$427,207	\$649,207	\$836,207	\$985,411	\$798,073	\$970,823	\$1,118,948	\$1,125,035	\$881,495	\$1,106,070	\$1,298,632
Operations	\$406,578	\$516,468	\$404,743	\$412,643	\$443,617	\$543,887	\$424,743	\$412,643	\$510,160	\$625,470	\$488,455	\$474,540
Engineering	\$220,434	\$230,616	\$285,516	\$284,516	\$326,524	\$321,784	\$337,506	\$323,366	\$473,460	\$466,587	\$489,383	\$468,880
Regulatory	\$87,318	\$111,451	\$126,111	\$80,480	\$87,318	\$111,451	\$126,111	\$80,480	\$104,781	\$133,741	\$151,333	\$96,576
Research	\$405,264	\$397,464	\$433,964	\$345,668	\$693,677	\$735,030	\$647,099	\$448,803	\$728,729	\$776,285	\$675,163	\$447,123
IP	\$96,030	\$124,830	\$104,630	\$56,080	\$96,030	\$124,830	\$104,630	\$56,080	\$144,045	\$187,245	\$156,945	\$84,120
Production	\$122,675	\$166,502	\$145,450	\$169,000	\$167,675	\$211,502	\$190,450	\$214,000	\$368,025	\$499,505	\$436,350	\$507,000
<b>Total operating costs</b>	<b>\$1,784,506</b>	<b>\$1,974,537</b>	<b>\$2,149,620</b>	<b>\$2,184,594</b>	<b>\$2,800,253</b>	<b>\$2,846,557</b>	<b>\$2,801,361</b>	<b>\$2,654,320</b>	<b>\$3,454,235</b>	<b>\$3,570,328</b>	<b>\$3,503,699</b>	<b>\$3,376,872</b>
<b>Total spend</b>	<b>\$1,784,506</b>	<b>\$3,759,043</b>	<b>\$5,908,663</b>	<b>\$8,093,257</b>	<b>\$10,893,510</b>	<b>\$13,740,067</b>	<b>\$16,541,428</b>	<b>\$19,195,748</b>	<b>\$22,649,983</b>	<b>\$26,220,311</b>	<b>\$29,724,010</b>	<b>\$33,100,882</b>

#### KEY

Go To Market	Reimbursement, Market Intelligence, Marketing, Chanel Engagement, Clincial Engagement
Operations	Operations, Finance, Board of Directors, Company Secreterial, Advisory, IT,Admin
Engineering	Software Development, Engineering, Hardware Support
Regulatory	Regulatory Advisors, Regulatory agents, Quality, Submission fees
Research	Clinical studies and Trials, Research, Clinical Research Organisations, Conferences
IP	Patents and Trademarks
Production	Platform, Cloud Infrastructure, Data Security

AUD to USD conversion rate: \$0.75

### 3.2.2 REVENUE FORECASTS

All figures are in Australian Dollars (AUD)

#### QUARTERLY REVENUES

	FY 18/19				FY 19/20				FY 20/21			
	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21
Hardware	-	\$1,533,333	\$766,667	\$40,000	\$40,000	\$846,667	\$806,667	\$40,000	\$766,667	\$1,693,333	\$846,667	\$40,000
Software	\$26,667	\$146,667	\$369,333	\$690,000	\$1,353,333	\$2,110,667	\$3,998,667	\$6,088,000	\$9,924,000	\$14,481,333	\$22,302,667	\$31,109,333
Grants	\$1,200,000	\$125,000	-	-	\$1,400,000	\$283,333	\$300,000	\$250,000	\$1,850,000	\$250,000	\$250,000	\$250,000
Gross revenue	\$1,226,667	\$1,805,000	\$1,136,000	\$730,000	\$2,793,333	\$3,240,667	\$5,105,333	\$6,378,000	\$12,540,667	\$16,424,667	\$23,399,333	\$31,399,333
<b>Cost of revenue</b>	<b>\$10,400</b>	<b>\$1,058,200</b>	<b>\$629,340</b>	<b>\$249,350</b>	<b>\$404,500</b>	<b>\$1,162,060</b>	<b>\$1,616,380</b>	<b>\$1,771,520</b>	<b>\$3,281,860</b>	<b>\$5,316,420</b>	<b>\$6,566,340</b>	<b>\$8,575,440</b>
<b>Net revenue</b>	<b>\$1,216,267</b>	<b>\$746,800</b>	<b>\$506,660</b>	<b>\$480,650</b>	<b>\$2,388,833</b>	<b>\$2,078,607</b>	<b>\$3,488,953</b>	<b>\$4,606,480</b>	<b>\$9,258,807</b>	<b>\$11,108,247</b>	<b>\$16,832,993</b>	<b>\$22,823,893</b>

#### QUARTERLY OPERATING COSTS

Operating costs	\$1,784,506	\$1,974,537	\$2,149,620	\$2,184,594	\$2,800,253	\$2,846,557	\$2,801,361	\$2,654,320	\$3,454,235	\$3,570,328	\$3,503,699	\$3,376,872
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#### QUARTERLY EBITDA

EBITDA	-\$568,239	-\$1,227,737	-\$1,642,960	-\$1,703,944	-\$411,420	-\$767,950	\$687,592	\$1,952,160	\$5,804,572	\$7,537,919	\$13,329,294	\$19,447,022
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#### QUARTERLY CASH POSITION

Cash position	\$431,761	-\$795,976	-\$2,438,937	-\$4,142,880	-\$4,554,300	-\$5,322,250	-\$4,634,658	-\$2,682,498	\$3,122,074	\$10,659,992	\$23,989,286	\$43,436,308
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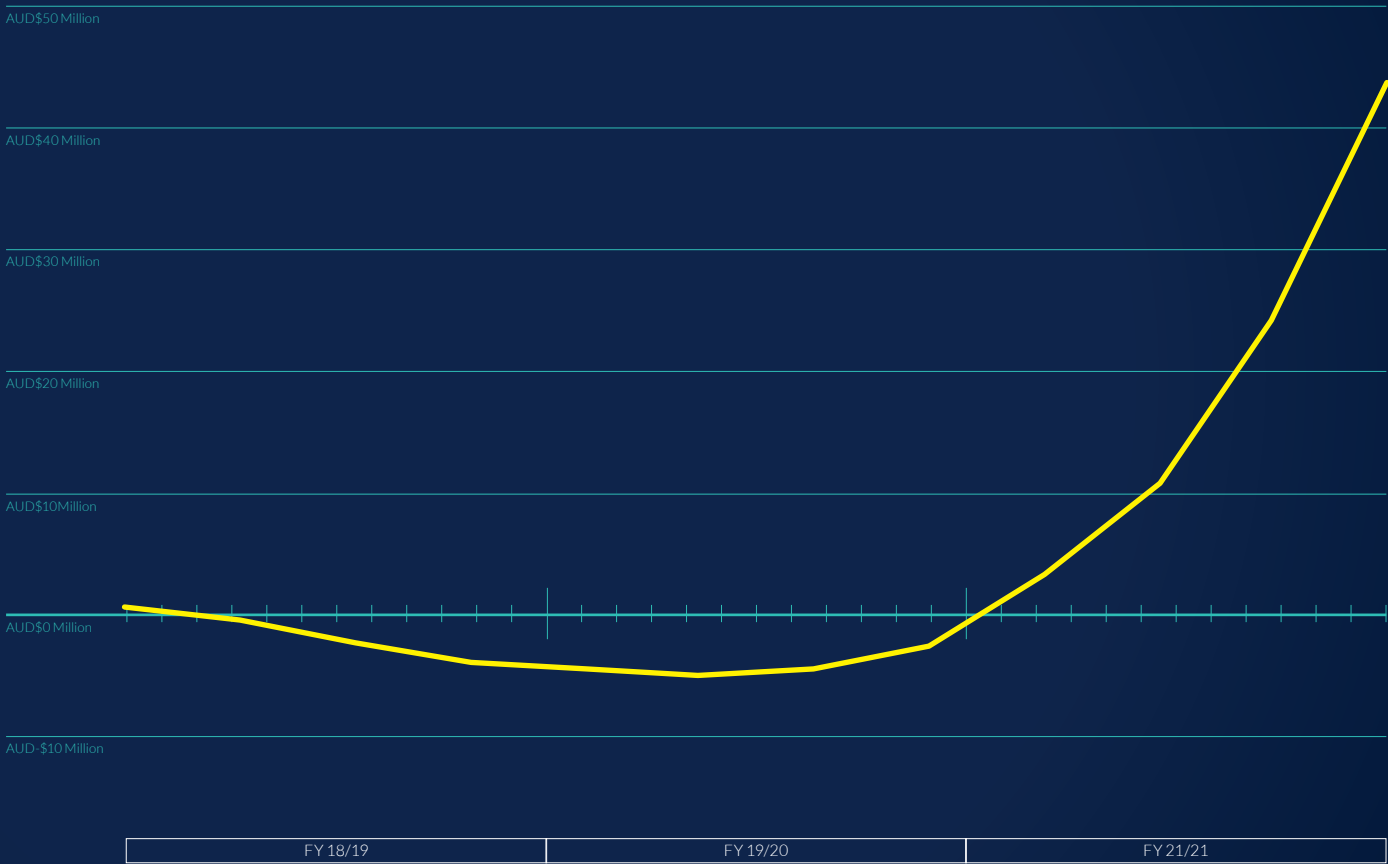
\*Note: Cost of revenue relates to costs that are only incurred as a result of successful sales (e.g. on-demand computing resources, additional human resources, etc.). Net revenue therefore is the total of the revenue from SaaS clinical, SaaS B2B, Hardware and Grants, less Cost of revenue.

# 3.2.3 CASH FLOW ANALYSIS 3 YEARS

## BASE CASE

### Cash at end of period

The cash shortfall of the plan laid out in this IM is just in excess of AUD\$5 Million. 4Dx intends to conduct one further Pre-IPO capital raising in late 2019 prior to becoming Cash flow positive.





## 3.2.4 SENSITIVITY ANALYSIS

### SUMMARY OF FINANCIAL FORECASTS

#### Sensitivity Analysis - Gross Revenue

##### Base Case

##### Key Assumptions

The base case financials are based on 4Dx gaining certain clearances from the FDA. The Directors have been working with our regulatory agent to a timeline that suggests they will submit for FDA clearance in 2018.

##### Optimistic Case

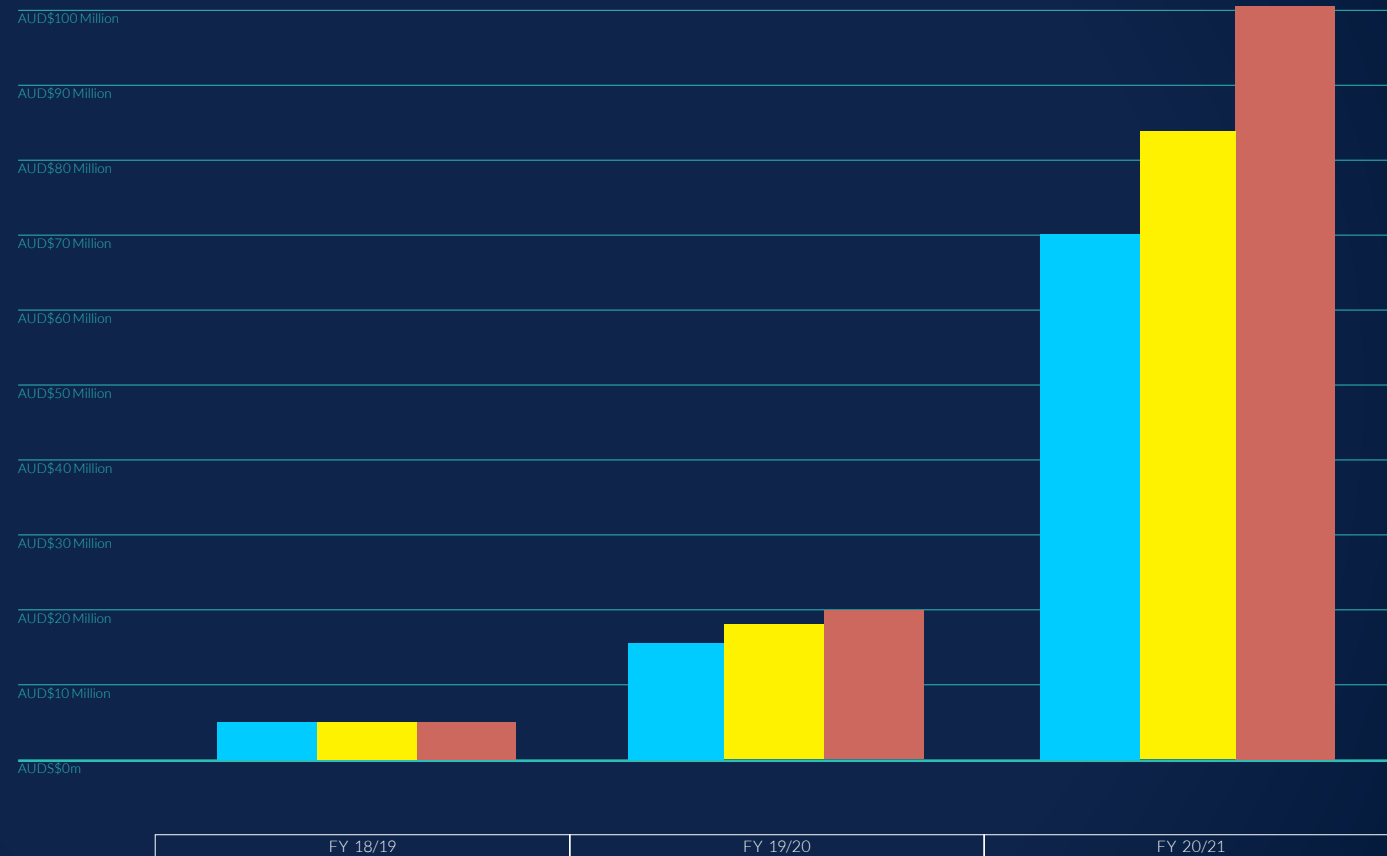
##### Key Assumptions

The Directors believe that an Optimistic Case scenario is based on a 30% increase in the rate of hospital adoption of the technology. The increased number of hospitals drives higher SaaS revenues and market penetration. This increased hospital take-up results in a 18% increase in the Year 3 Gross revenue from AUD \$31,399,333 to AUD \$38,296,333.

##### Conservative Case

##### Key Assumptions

The Directors believe that a Conservative Case scenario is based on a 30% decrease in the rate of hospital adoption of the Technology. This decreased hospital take-up results in a 15 % decrease in Year 3 Gross revenue from AUD \$31,399,333 to AUD \$25,745,333



## **4. RISKS INVOLVED WITH INVESTMENT**

## 4. RISKS INVOLVED WITH INVESTMENT

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### 4.1 INTRODUCTION

Because the Company commenced operations in July 2013 and has not as yet reached break-even or profit, investment in this Round should be considered speculative. In addition, as 4Dx is not listed on any share exchange at present, there is no secondary market for the sale of Shares. If you do not know the effect of this on your investment strategy, you should consult your professional advisors for advice. Further, your ability to sell your Shares is not regulated under specific provisions of 4Dx's constitution (see clause 67 of the Company's constitution).

You should carefully consider the risks involved in acquiring the Shares, including those risks described below and all of the other information set out in this IM before deciding to invest in the Company. If any of the events or developments described below occurs, the Company's business, financial condition or operations could be negatively impacted. In that case, the value of the Shares could decline, and you could lose all or part of your investment. As with any equity investment, substantial fluctuations in the value of that investment may and often do occur.

This section, which is not exhaustive of all risks, identifies the risks that the Directors regard as the major risks associated with the Company's business, the industry in which it operates and the risks associated with an investment in the Shares. You should read the entire IM (with particular emphasis on this section) in order to fully appreciate the risks of an investment in the Company and the manner in which the Company intends to operate before any decision is made to subscribe for the Shares.

If you are considering an investment in the Company, you are also strongly advised to consider whether the Shares are a suitable investment having regard to your personal investment objectives and financial circumstances (and the risk factors set out in this section). If you are in any doubt about the suitability of an investment in the Company, you should obtain professional investment advice before making an application under this Round.

## 4.2 COMPANY RISKS

Risks specific to the Company's business and industry in which it operates:

TYPE OF RISK	DESCRIPTION OF RISK
Barrier to entry	Key players in the medical imaging sector may attempt to block 4Dx from market penetration. As a SaaS cloud supplier, the key pathways for blocking (distribution, maintenance) are significantly ameliorated. Furthermore, the 4Dx business strategy offers significant opportunities for one or more key players in the medical imaging industry to form special partnerships with 4Dx (e.g. for an established manufacturer to manufacture dedicated 4Dx hardware under license). These partners will be selected (in part) for their capacity to grant 4Dx access to the market.
Regulatory Risk	There is a risk that the relevant regulatory bodies (primarily the FDA in the US) will not grant 4Dx regulatory clearance to market its products, or will significantly delay the grant of such clearances. Failure to receive regulatory clearance will have a negative impact on 4Dx's future revenue streams, however the Company has developed significant market opportunities that do not require regulatory clearance e.g. research products to the research sector and contract research services to the pharmaceutical sector.
Technology Supplier Risk	As a SaaS product supplier, there is a risk that 4Dx's cloud delivery partner could breach the delivery agreement and/or other relevant contractual arrangement. As the developer and owner of the SaaS product, 4Dx is in a position to replace cloud suppliers at short notice. Alternate suppliers in the SaaS sector are well placed to rapidly and elastically scale to support demand with minimal disruption to customers due to the change of cloud supplier.
Political Risk	The legislative frameworks in key countries may vary without notice impacting the Company, in particular its operations and profitability.
Foreign- Exchange Risk	4Dx's financial position might be negatively affected by exchange rate fluctuations. In particular, the majority of Company costs are Australian dollar denominated relating to Research & Development staff based in Melbourne, whereas initial Company revenues are expected to be substantially all US dollar denominated. As a result, a weaker (stronger) US dollar versus the Australian dollar will have a negative (positive) affect on the Company's profitability.
Risk of Superseding Technology	<p>This is the risk that new technology will be developed that will supersede 4Dx technology. 4DxV technology supersedes the pulmonary function test (invented in the 1850s), the X-ray (invented 1890s) and the CT (invented 1970s). In short, pulmonary diagnostic modalities are devised very infrequently. Additionally, new technologies have significant development and commercialisation timelines.</p> <p>In addition to the 20 years of monopoly rights granted by our extensive patent portfolio, 4Dx will continue to invest heavily in R&amp;D to provide the greatest possible likelihood that any technology that supersedes the current offering is developed by 4Dx and not our competition.</p>
Key Man Risk	This risk relates to an over-reliance on one or a few individuals, but in particular, 4Dx's founder and CEO Andreas Fouras. In addition to key man insurance for the CEO, 4Dx internal management and HR policies and procedures involve significant communication of company planning over all timeline horizons along with a structured succession plan for executive and other senior level roles within the Company.
Intellectual Property	4Dx has developed and owns a range of proprietary items of intellectual property that the Company believes are novel and inventive. The granting of a patent does not guarantee that the rights of others are not infringed or that competitors will not develop technology to avoid the patented technology, or that a competing company does not infringe on our patents.

### 4.3 INVESTMENT SPECIFIC RISKS

General risks associated with an investment in the Company are:

TYPE OF RISK	DESCRIPTION OF RISK
Income and capital risk	<p>An investment in the Company is speculative in nature and any returns on capital contributed are not guaranteed by the Company, its Directors, officers or any other person. The speculative nature of the investment poses a risk that capital may not be returned to investors. The value of investments may fluctuate and the investor may not get back the amount initially invested.</p> <p>The Company cannot make any assurances in relation to its ability to obtain appropriate capital or funding, if or when, needed in the future. If the Company is not able to obtain funding as needed, this could have a material adverse effect on the Company's business operations and the commercialisation of its products, and may affect its ability to continue as a going concern.</p>
Liquidity risk	<p>As Shares in the Company are not listed on any stock exchange, there is currently no liquid market for the Shares. Furthermore, the trading of Shares is also limited by the Company's Constitution (see section 5.5 for more details). Because there is a limited secondary market for the Shares, it might not be possible to sell the Shares at the prevailing price or at all. Therefore an investment in the Company is only suitable for investors with a long-term investment horizon.</p>
Dilution	<p>The Company may need to raise additional funds through a further capital raising or debt facility at some time in the future, after the capital raising being undertaken under the IM is completed. Any such further capital raising is likely to have the effect of diluting the interests of Shareholders.</p>
Litigation	<p>In the ordinary course of its business, the Company may be subject to the risk of litigation and other disputes with its employees, consultants, lessors, regulators and other third parties. Proceedings may result in high legal costs, adverse monetary judgments and/or damage to the Company's reputation, which ultimately is likely to have an adverse effect on the financial performance of the Company.</p>
General economic risks	<p>The performance of the Company, like all companies, is subject to general economic conditions. Movements in economic growth rates, interest and inflation rates, and currency exchange rates may have an adverse effect on the Company's activities, as well as its ability to fund those activities.</p>
No minimum subscription	<p>There is no minimum subscription under this Round. Accordingly, the Company does not make any representation that the funds raised under this Round made in this IM will be sufficient to achieve the objectives set out in clause 1.3.</p> <p>Any funds raised under this Round will be pooled with funds being raised concurrently from retail investors, as well as grant applications and product sales in order to provide the working capital required to fund 4Dx's core operations and capital expenditure.</p>

# 5. ADDITIONAL INFORMATION



## 5. ADDITIONAL INFORMATION

### 5.1 CONSENTS AND DISCLAIMERS OF RESPONSIBILITY

Each of the Directors has given, and has not withdrawn, their consent to the issue of both paper and electronic form in this IM.

### 5.2 DIRECTOR SHAREHOLDINGS

As at the date of this IM, the Directors (either personally or through related companies or trusts) hold the following shareholdings in the Company:

DIRECTOR	SHAREHOLDING
Andreas Fouras	64,838,000 ordinary shares
Heath Lee	2,200,000 ordinary shares
Julian Sutton	640,000 ordinary shares
John Livingston	370,272 ordinary shares
Robert Figlin	244,162 ordinary shares
Lusia Guthrie	65,000 ordinary shares

### 5.3 TAKEOVER PROVISIONS OF THE CORPORATIONS ACT APPLY

As the Company has more than 50 members, the takeover provisions of the Corporations Act (Chapter 6) apply to the Company and to the acquisition of relevant interests in shares in the Company.

In the context of this Round, no Shares will be issued to an Applicant if the issue of those Shares would result in any person (and its associates, as that term is defined in the Corporations Act) acquiring an interest in greater than 20% of the issued voting shares of the Company, unless that person (and its associates) is permitted to do so under the Corporations Act.

### 5.4 CONTINUOUS DISCLOSURE APPLIES

As at the date of this IM, the Company is a “disclosing entity” under the Corporations Act, and is therefore subject to regular reporting and disclosure obligations.

### 5.5 LOW-VOLUME FINANCIAL MARKET

4Dx is an unlisted public company, and its shares are not listed on any licensed market or exchange, including the Australian Securities Exchange. 4Dx has sought legal advice about potentially operating a low-volume financial market (LVFM) and amended the Company’s constitution on 11 May 2017 to allow for the operation of a LVFM. If implemented, an LVFM would provide 4Dx members with a platform of limited and conditional liquidity for their shares.

Subject to board approval, if 4Dx elects to operate a LVFM, 4Dx will be required to make an application to ASIC, under which it will need to demonstrate that it can comply with the conditions set out in the Corporations (Low Volume Financial Markets) Instrument 2016/888.

At the date of this document, 4Dx has not applied to ASIC to operate a LVFM, and makes no representations that it will operate a LVFM in the future.

### 5.6 RIGHTS AND LIABILITIES ATTACHING TO SHARES

Full details of the rights and liabilities attaching to Shares are set out in the Company’s constitution. The Company’s constitution has been lodged with ASIC. Any person may request a copy of the constitution during the Fundraising Period, which the Company will provide free of charge.

The following is a summary of the more significant rights and liabilities attaching to the Shares. This summary is not exhaustive and does not constitute a definitive statement of the rights and liabilities of shareholders. As the Shares are ordinary shares, the Shares have the same rights and liabilities as all other ordinary shares. Therefore, unless specified otherwise below, reference to “ordinary shares” shall include Shares issued under this IM.

#### (A) GENERAL MEETINGS

Shareholders are entitled to be present in person, or by proxy, attorney or representative to attend and vote at general meetings of the Company.

## **(B) VOTING RIGHTS**

Subject to any rights or restrictions for the time being attached to any class or classes of shares, at general meetings of shareholders or classes of shareholders:

- i) each shareholder entitled to vote may vote in person or by proxy, attorney or representative;
- ii) on a show of hands, every person present who is a shareholder or a proxy, attorney or representative of a shareholder has one vote; and
- iii) on a poll, every person present who is a shareholder or a proxy, attorney or representative of a shareholder shall, in respect of each fully paid share held by him, or in respect of which he is appointed a proxy, attorney or representative, have one vote for each fully paid share held.

## **(C) MAJOR SHAREHOLDERS' RESOLUTIONS**

A Major Shareholders' Resolution is required before the Company can undertake any of the following activities:

- i) variation of rights to shares and securities;
- ii) amending or repealing the Company's constitution;
- iii) divesting itself of all or a material part of its business or its assets or of any material shareholding either by a single event or by two or more events within any 6-month period;
- iv) to voluntarily liquidate, wind up or merge its operations; or
- v) take any action or on any other matter specified in the Company's constitution to require a Major Shareholders' Resolution.

## **(D) DISPOSAL OF SHARES**

### **INTRODUCTION**

Subject to certain conditions in the Company's constitution (in particular, the provisions below) a shareholder may transfer all or any of its shares as they see fit. The Directors may not refuse to register a transfer of shares, except where the Company's constitution expressly permits the directors to refuse to register the transfer.

### **LEGAL PERSONAL REPRESENTATIVES**

Directors are required to register a transfer or transmission of shares to the legal personal representative of a deceased shareholder where the transferee is a member of the family of the deceased or an associate of the deceased, and is entitled to those shares under the deceased's will, or at law.

### **RESTRICTIONS ON DISPOSAL**

A shareholder must not dispose of shares or securities without the prior approval of the directors in the following circumstances:

- i) if the number of shares or securities to be transferred is below a threshold number calculated in accordance with the Company's constitution, where the proposed transferee is a shareholder of the Company, or an affiliate of a shareholder; and
- ii) in any circumstances where the proposed transferee is not a shareholder of the Company, or an affiliate of an existing shareholder.

Nothing in this section limits the directors from transferring to a deceased member's legal representative, as outlined above.

### **LOW VOLUME FINANCIAL MARKET**

Subject to receipt of the Board's approval and ASIC's approval, in circumstances where the Company elects to operate an LVFM in the future, the Board may be permitted in its absolute discretion to establish rules in respect of which a share or security may be transferred, sold or disposed of on the LVFM. At the date of this document, 4Dx has not applied to ASIC to operate a LVFM and makes no representations that it will operate a LVFM in the future.

### **TAG-ALONG RIGHTS**

If a shareholder wishes to sell 20% or more of all shares and does not wish to exercise a "drag-along" right, then each other shareholder may exercise a "tag-along" right to require the seller shareholder to cause the purchaser of its shares to also buy some or all of their securities at the same price as notified by the seller shareholder.

### **DRAG-ALONG RIGHTS**

If a shareholder who holds 75% or more of all securities in the Company wishes to sell all of its securities, then the seller shareholder has the right to require all other shareholders also to sell all their securities to the proposed purchaser on the same terms.

## **(E) DIVIDEND RIGHTS**

Subject to the rights of any preference shareholders and to the rights of the holders of any shares created or raised under special arrangement as to dividend, the Directors may from time to time declare a dividend to be paid to the shareholders entitled to the dividend.

Dividends shall be payable on all shares according to the proportion that the amount paid (not credited) is of the total amounts paid and payable (excluding amounts credited) in respect of such Shares.

Unless otherwise specified in the decision to pay a dividend, all dividends are payable to shareholders on the register on the date fixed for payment.

## **(F) WINDING UP**

If the Company is wound up, the holders of ordinary shares have the right to participate in the division of any surplus assets or profits of the Company in proportion to the number of ordinary shares held, irrespective of the amount paid or credited as paid on those shares (except that, in the case of any shares that were partly paid up at the commencement of the winding up, that the amount required to be paid to make them fully paid must first be contributed to the Company).

## **(G) SHAREHOLDER LIABILITY**

As the Shares issued will be fully paid shares, they will not be subject to any calls for money by the Directors and will therefore not become liable for forfeiture.

## **(H) FUTURE INCREASE IN CAPITAL**

The issue of any new Shares is under the control of the Directors. Subject to any restrictions on the issue or grant of securities contained in the Corporations Act (and without affecting any special right previously conferred on the holder of an existing share or class of shares), the Directors may issue Shares as they shall, in their absolute discretion, determine.

## **(I) VARIATION OF RIGHTS**

Under the Corporations Act, the Company may, with the sanction of a special resolution passed at a meeting of the shareholders vary or abrogate the rights attaching to shares. Rights attached to shares in a class of shares may be varied or cancelled only by a special resolution of shareholders together with either a special resolution passed at a meeting of the shareholders holding shares in that class, or with the written consent of shareholders with at least 75% of votes in that class.

## **5.7 MISCELLANEOUS**

### **(A) DIRECTORS**

The number of directors must not be less than 1 nor more than 9. A share qualification for directors may be fixed by the Company in general meeting. Unless and until so fixed, a director is not required to hold any share in the Company.

The Company in general meeting may by resolution, and the Directors may at any time, appoint a person qualified to be a director.

A director holds office until the occurrence of any of the following:

- i) the shareholders, by resolution, remove the director;
- ii) shareholders holding shares which give them the right to a majority of votes at a general meeting, removes the director by instrument in writing
- iii) the director resigns; or
- iv) the director vacates his/her office as required under the Corporations Act or is deemed to have vacated his/her office in a range of circumstances specified in the Company's constitution.

### **(B) EMPLOYEE EQUITY PLAN**

The Company adopted an employee equity plan at a general meeting held on 28 October 2016 (EEP).

Under the EEP, the Board may invite employees to participate in a grant of rights or options. Rights eventuate from employee performance whereas options are an entitlement to receive a share. These rights and options entitle the beneficiary a right or option to acquire ordinary shares in 4DX subject to certain performance and service related conditions determined by the Board and, in the case of options, payment of the applicable exercise price.

The Board may make one or more of the below three offers to an employee under the EEP:

1. **Salary Sacrifice Offer:** under this offer employee may sacrifice a portion of their income to purchase rights to shares (salary sacrifice rights). The purchase price of each salary sacrifice right will set at a discounted rate on the market value of a share.
2. **Special Award:** The special awards offer is intended to be offered to employees selected by the Board, in recognition of their ongoing performance and service to the Company to deliver a portion of their short-term incentive in equity. Under the special awards offer, participants will be granted rights to acquire shares.
3. **Long Term Incentive Offer:** The long-term incentive offer is intended to be offered to employees selected by the Board, to provide an incentive and reward for meeting certain performance conditions. Under the long-term incentive offer, participants will be granted options to acquire shares.

### Participants

Awards may be granted at the discretion of the Board to any person who is an employee (including any executive director) of the Company (or any group entity), or any other person so designated by the Board.

### Vesting and exercise of rights/options

The rights/options held by an employee will vest in and become exercisable by that employee upon the satisfaction of any vesting conditions specified in the invitation and in accordance with the rules of the EEP. Awards will only vest once the Board, in its discretion, determines any relevant conditions have been satisfied.

### Rights/options on issue

As at the release of this IM, the following rights/options have been granted by the Company (but not yet exercised):

TYPE	QUANTITY
Vested options	18,000,241
Granted options	984,646
Vested rights	1,613,117
Granted rights	2,626,884

### (C) ALTERATION OF CONSTITUTION

In accordance with the Corporations Act, the Company's constitution can only be amended by a special resolution passed by at least three quarters of shareholders present and entitled to vote at the general meeting.



# 6. GLOSSARY

## 6. GLOSSARY

TERM	DEFINITION
4DxV	4DxV is the core technology behind 4Dx's product platform. The patented technology allows the measurement of lung motion in 4D.
Applicant	A person who makes an Application for Shares under this IM.
Application	An application to subscribe for Shares under this IM.
Application Monies	The relevant Subscription Amount accompanying an application form submitted by an Applicant.
ASIC	Australian Securities and Investments Commission.
Board	The board of directors of the Company.
Company	4Dx Limited ACN 161 684 831.
Corporations Act	Corporations Act 2001 (Cth) as amended from time to time.
Directors	The directors of the Company, as disclosed on page 20 & 21.
EEP	Any employee share option plan established by the Company.
Exit	An IPO, trade sale or other sale, transfer or exchange of all or substantially all of the shares (including a share swap), a sale of substantially all of the assets of the Company or a return of capital by the Company.
FDA	The U.S federal agency responsible for monitoring trading and safety standards in the food and drug industries.
Fundraising Period	The period during which investors may subscribe for Shares under this Round.
IM (Information Memorandum)	This document (including the electronic copy of this IM) and any supplementary or replacement IM in relation to this document.
LVFM	Low Volume Financial Market under the Corporations (Low Volume Financial Markets) Instrument 2016/288 from time to time.
Major Directors' Resolution	A directors' resolution passed by a majority representing not less than 75% of all votes capable of being cast at a meeting of directors (as if that meeting was attended by all directors).
Major Shareholders' Resolution	A resolution of shareholders of the Company passed by such number of shareholders voting in favour of the resolution that hold at least 75% of the number of shares in the Company then on issue at the date of the resolution.
Patent	A patent confers exclusive rights to exploit, and to authorise other persons to exploit, the invention in respect of which it is granted, during the term of the patent, in a specific territory.
RDx	(shorthand for Respiratory Diagnostics) is the designation of 4Dx products in the Respiratory Diagnostics sector. This line specifically relates to the measurement of regional lung function (in 4D) for the diagnosis of lung disease and the monitoring on lung health.
Round	The offer of 13,500,000 Shares under this Series B fundraising round.
(SaaS) Software-as-a-Service	A software licensing model in which access to the software is provided on a subscription basis, with the software being located on external (cloud) servers rather than on servers located in-house.
Share	A fully paid ordinary share in the capital of the Company.
Shareholder	A person registered from time to time on the Company's register as a holder of one or more Shares.
Subscription Amount	The amount of money payable by an Applicant for Shares.





# **7. CORPORATE DIRECTORY**

## 7. CORPORATE DIRECTORY

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### 4DX LIMITED

ACN 161 684 831

### REGISTERED OFFICE

Level 5, 468 St Kilda Road,  
Melbourne 3004, Australia

### PRINCIPAL PLACE OF BUSINESS

Level 5, 468 St Kilda Road  
Melbourne VIC 3004, Australia

### WEBSITE

[www.4Dx.com](http://www.4Dx.com)

### DIRECTORS

Andreas Fouras	Chair
Heath Lee	Non-Executive Director
Robert Figlin	Non-Executive Director
Lusia Guthrie	Non-Executive Director
John Livingston	Non-Executive Director
Julian Sutton	Non-Executive Director

### COMPANY SECRETARY

Charlene Stahr

### VIRTUAL CFO AND ACCOUNTING

**Ernst & Young**  
8 Exhibition Street  
Melbourne VIC 3000, Australia

### LEGAL

**Norton Rose Fulbright**  
485 Bourke Street  
Melbourne VIC 3000, Australia

**Ernst & Young**  
8 Exhibition Street  
Melbourne VIC 3000, Australia

### AUDITOR

**PKF Melbourne Pty Ltd**  
Audit & Assurance  
Level 12, 440 Collins Street  
Melbourne VIC 3000, Australia

### SHARE REGISTRY

**Link Market Services Limited**  
Level 1, 333 Collins Street  
Melbourne VIC 3000, Australia