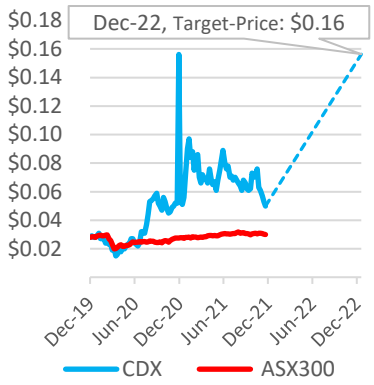
CARDIEX LTD (CDX)

CDX INTENDS TO CREATE A TRANSFORMATIONAL HEALTHCARE AND WELLNESS ECO-SYSTEM

We say	Share Price	Target Price
SPEC BUY	0.052	0.16

CardieX's strategy is to pivot its market leading clinical "gold standard" FDA-cleared non-invasive central blood pressure monitoring technology into the vast consumer health and wellness marketplace. CDX is developing a suite of innovative devices and digital solutions including the world's first consumer-focused dual blood pressure monitor and a health wearable, which measure both brachial AND *non-invasive* central blood pressure. CDX is supported by an impressive team of go-to-market partners, including brand builder Butchershop and health-data marketing specialist Real Chemistry. We initiate coverage with a SPEC BUY, TP $0.16.

SHARE PRICE VS ASX300 AND TARGET



OPTIONS EXERCISED

On 6th December, CDX announced take up of 93% of CDXO and unlisted 30 November expiry 5¢ options raising $7.7m (directors contributed in excess of $2m)

Option overhang removed.

COMPANY DATA

Enterprise value	$51m
Market cap	$56m
Issued capital	1,099.0m
Free float	~80%
12-month price range	$0.05 - $0.12
GICS sector	Application Software

BALANCE SHEET

Total Debt	$0.4m
Cash Balance *	$5.9m
* Forecast at 31-Dec	

FDA CLEARANCE BEING SOUGHT FOR NEW PRODUCTS AND APPS

CDX is preparing FDA submissions for its new CONNEQT brand blood pressure monitoring devices. The first submission is expected soon for the CONNEQT Pulse - the world's first consumer dual blood pressure and (non-invasive) central blood pressure monitor. This will be followed by the wearable CONNEQT Band and associated apps.

APPLICATION LEVERAGES EXISTING FDA CLEARANCE

FDA clearance for the new devices and apps leverages CDX's existing FDA cleared "gold standard" clinical XCEL technology. In our view, this helps to de-risk the regulatory process. If granted, CDX will be the only company with an FDA cleared home health device and digital eco-system for consumer cBP and pulse wave arterial analysis.

LONG TERM POTENTIAL IS NOT FACTORED INTO OUR TARGET PRICE

Our 5-year DCF based target price of $0.16/s acknowledges CDX early-stage growth potential and the impending nature of the FDA clearance process for the new product suite. However, this target price does not nearly reflect the enormous, longer term potential should CDX unique products succeed in becoming mainstream household names.

CONTENTS

INVESTMENT SUMMARY

- CDX's ATCOR division is a world-leading developer of clinical-use medical devices which measure central blood pressure waveforms and arterial stiffness.
- Under the leadership of CEO Craig Cooper, Chairman Niall Cairns, and a strong management team, CDX's new CONNEQT division is employing this technology to develop and market consumer wearable and home health devices focused on heart and arterial health and other patented fitness and wellness parameters.
- The new products and the transformational consumer pivot represent a "re-founding" of the company and will, in our view, materially elevate its long-term growth potential.

FDA CLEARANCE BEING SOUGHT FOR NEW CONSUMER DEVICES AND APPS

CDX, through its new CONNEQT division, is finalising the development of a suite of blood pressure monitoring devices that will leverage its "gold standard" leading position in the clinical blood pressure monitoring marketplace. These new consumer-oriented products include a brachial-cuff monitor, which incorporates CDX's existing patented and FDA-cleared clinical technology, and a wearable device in the form of a wristband to measure cBP and other "first-in-kind" trademarked health parameters, through non-invasive means.

CDX is also building a digital healthcare eco-system around these new products which will include associated apps and a SaaS based portal for physicians who will be able to access the patient data generated from use of the new products.

FDA clearance for the new monitoring devices and associated apps leverages CDX's existing FDA cleared "gold standard" clinical XCEL technology.

CDX NEW PRODUCT SUITE LEVERAGES CDX'S LEADING CLINICAL BLOOD PRESSURE MONITORING TECHNOLOGY

The market for blood pressure monitoring devices was valued at US$1.49bn in 2020 and is expected to grow to over US$3.21bn by 2028 at a CAGR of 9.8%pa. By comparison, the health wearables market was US$29.76bn in 2020 and is expected to balloon to over US$195bn by 2027 at a CAGR of 26.4%pa. The CONNEQT Band wearable product is positioned more towards the medical health end of the wearables spectrum rather than being a so-called lifestyle wearable. It is targeted towards health-conscious users and their physicians, as well as CDX's clinical trial partners.

A key issue for the 2.4bn people suffering from high blood pressure or hypertension is the reliance on traditional brachial blood pressure (bBP), as a stand-alone measure or predictor of cardiovascular disease. This results in misdiagnosis, overtreatment or undertreatment, and sub-optimal medical advice. In comparison, central blood pressure (cBP), the measurement of arterial pressure at the descending aorta of the heart, is 50% more accurate at predicting cardiovascular events, identifies approximately 70% more patients that are potentially at early-stage risk, and is estimated to potentially reduce global prescription drug treatment costs by $56bn annually.

THE UNDERLYING CONSUMER MARKET OPPORTUNITY IS ENORMOUS AND NOT FACTORED INTO OUR PRICE TARGET

The CDX go-to-market strategy for CONNEQT is being co-formulated in collaboration with specialist brand developer, Butchershop, and healthcare market data strategist group, Real Chemistry.

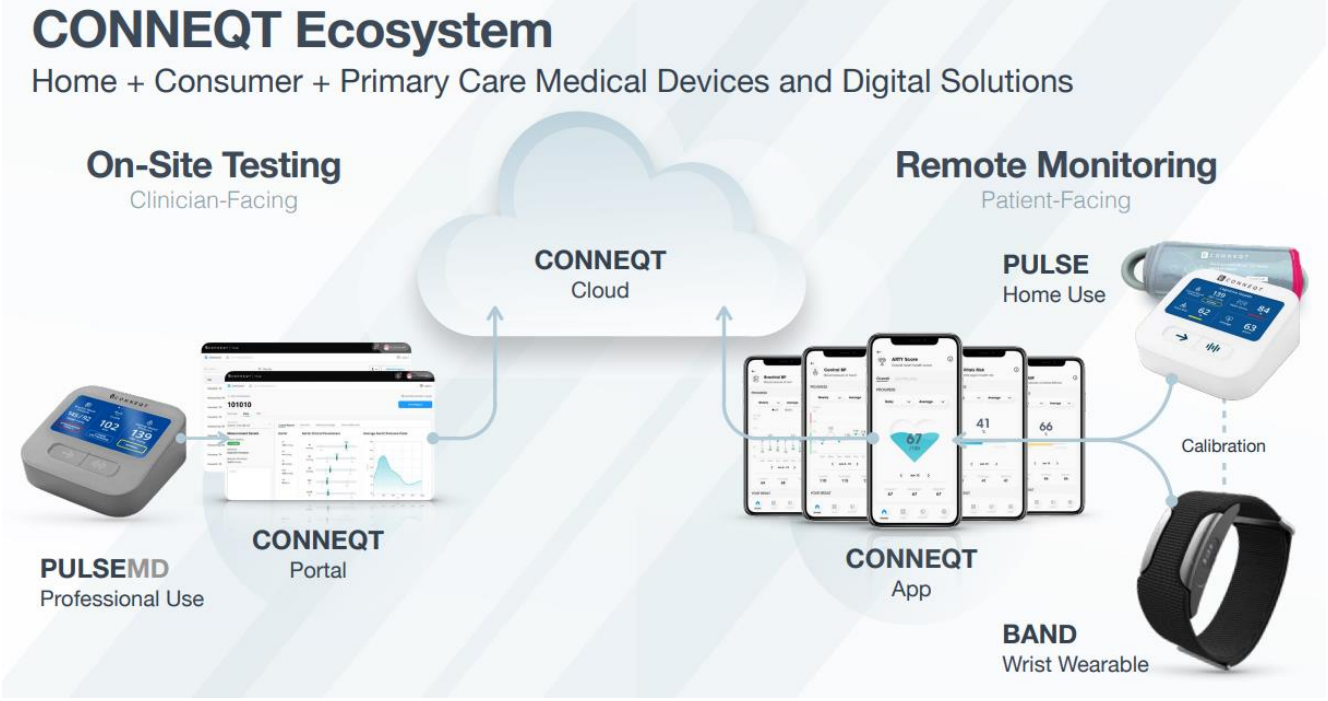
Butchershop is a highly sought-after brand and digital marketing agency and features the likes of Nike, Facebook/Oculus, and Tonal, on its client list. Butchershop has been integral to the development and launch of over 30 of the leading Silicon Valley "unicorns" (+USD$1bn company value) and we regard Butchershop's acceptance of CDX as a client as a great validation of the new product range and a significant win for CDX and its growth aspirations.

We initiate coverage of CDX with a Spec BUY recommendation, which contemplates the impending FDA clearance for the new consumer product range and the ensuing marketing campaign and sales growth. We use a 5-year DCF based valuation approach to arrive at an initial price target of $0.16 per share.

CARDIEX NEW CONSUMER PRODUCT SUITE

CDX is set to release a range of products that incorporate their patented SphygmoCor® technology as well as a digital ecosystem and remote patient monitoring platform, named "Arty" which is incorporated into the CONNEQT app. These products are targeted towards the consumer health and lifestyle segments and will leverage CDX's technology and heart health algorithms to provide clinicians and consumers with a proprietary suite of unique health tools.

Although both new products will be FDA cleared, it is of particular value for the CONNEQT Band, as it allows the company to position it as a medically reliable wearable device.



Source: Company

MOBVOI SMARTWATCH

Developed in partnership with Mobvoi, a leading Chinese AI and consumer electronics company and Google's official China "Wear OS" partner, a new smartwatch is also set to be jointly released "imminently" by the company and Mobvoi.

While the smartwatch is not being marketed as a medical device, it will incorporate a suite of CDX's biometric algorithms and AI-powered health analytics. The new smartwatch will also include a "first-in-kind" patent-pending sensor technology developed by CDX's ATCOR subsidiary. By leveraging CDX's SphygmoCor technology, it is set to be the world's first smartwatch capable of providing unique PPG-based heart and arterial health parameters which, along with the applicable algorithms, are patent-pending and act as key points of differentiation in the smartwatch market. Importantly, the partnership with Mobvoi opens up significant potential for the rollout of CDX's technology across the full spectrum of Mobvoi smartwatches.

CONNEQT PULSE

The Pulse is the second product set to be released and will be the world's first FDA-cleared consumer-focused dual blood pressure monitor which measures both brachial blood pressure and non-invasive central blood pressure using SphygmoCor® technology. The Pulse will also be the world's first cloud-connected home-use cBP monitor with advanced arterial health biometrics and will be able to provide 24/7 remote patient monitoring and telehealth services between physicians and users.

The Pulse provides a unique range of health parameters targeted towards some of the world's largest health disorders including hypertension, cardiovascular disease, vascular dementia, kidney disease, and Alzheimer's. The Pulse is fully customisable to the health requirements of the end-user and when paired with the Arty platform within the CONNEQT app (discussed below), will provide free and premium subscription services as well as a reimbursable CPT code (billable) for primary care physicians in the USA.

CDX plans to target the US, European, Australian, and Chinese markets initially with the Pulse serving as the anchor device for their home health-tech strategy and a crucial component in the establishment of the Arty digital ecosystem. Additionally, a version of the Pulse specifically targeting clinical use, called the Pulse MD, is set to be released in the near future.

CONNEQT BAND

The CONNEQT Band will be the world's first AI-powered, FDA cleared, clinical-grade smart health wearable featuring dual-PPG sensor technology. It is uniquely positioned in the wearable health space and is targeted towards health-conscious consumers with underlying vascular health conditions (heart, brain, renal, arterial), as well as consumers who either want, or need, medically reliable health data.

The Band incorporates a full suite of patented arterial health parameters, a comprehensive ecosystem of unique health and wellness features, and an advanced arterial health monitoring digital platform that can be customized to track underlying vascular conditions and provide wearers continuous analysis of their overall health.

Key CONNEQT Band technology:

- First clinical-grade, FDA cleared medical device within the health wearable market to feature cBP and other trademarked health biometrics.
- First wearable to include dual-PPG sensors (radial + side sensor) based on CDX patents-pending.
- Dual sensor technology to provide haptic alerts and notifications for blood pressure and other medical/consumer health parameters.
- Includes CDX's patent-pending PPG-based health algorithms.

When paired with the CONNEQT companion app, the CONNEQT Band will track users' heart health, support 24/7 practitioner monitoring and apply advanced AI analytics to analyse personal health data and provide unique advice regarding vascular and health performance.

The CONNEQT Band is anticipated to be the only wearable with CPT (Current Procedural Terminology) code compliance, allowing for physician reimbursement (~AUD$20) for each central blood pressure measurement and interpretation communicated remotely.

The Band is being developed in partnership with Fenda Technology and LifeQ. While Fenda is leading the manufacturing and development, LifeQ is responsible for promotion and distribution in key markets, delivering biometric information obtained from PPG sensors and integrating its on-device software for data analytics and synchronisation to CONNEQT and LifeQ cloud-based networking infrastructure.

CONNEQT APP & "ARTY": DIGITAL ECOSYSTEM & REMOTE MONITORING PLATFORM

Arty is a heart health analytics platform and ecosystem that lives within the CONNEQT app. Arty leverages CDX's SphygmoCor® technology and heart health algorithms to provide clinicians and consumers with a proprietary suite of unique biometric, AI driven, health tools. The CONNEQT app "connects" and integrates all CONNEQT devices into patient record-keeping management systems of physicians, provides consumer health diagnostics and allows for 24/7 remote patient monitoring, telehealth services, and health coaching.

There are eight unique features enabled through the connection to the Arty heart health analytics platform. While many features may also be licenced to smartwatch, consumer electronics, connected fitness, and other wearable companies for incorporation into their own devices, the most unique health insights can only be provided using CONNEQT devices.

UNIQUE FEATURES INCLUDED IN CONNEQT DEVICES (IN ADDITION TO CENTRAL BLOOD PRESSURE)

Arty Score	Combines several CDX parameters (Heart Stress Index (HSX), Exercise Capacity (eCAP), TruHR, and Arterial Age) and aggregates this cardiovascular data into a comprehensive, personal heart and arterial health score and cardiovascular risk profile.
ArtyAge	Helps to determine the actual biological age of your heart in comparison to your chronological age by comparing your heat health with other health people in your age group. ArtyAge is based on pulse wave analysis (PWA) of large-scale population studies.
Exercise Capacity (eCAP)	Measures the heart's capability to provide oxygenated blood to cells based on the body's performance demands. Unlike VO2 max, eCap is a measurement of potential exercise endurance based on cardiovascular health.
Heart Stress Index (HSX)	Measures the load on the heart due to the hardening of arteries. Extra load causes the heart to work more, which leads to the development of cardiovascular disease. If heart stress is high, it is a greater sign of cardiovascular risk. HSX can be reduced by treatment and changes in lifestyle (diet, exercise, etc.).
Arterial Stiffness Factor (ASF)	Measures the flexibility of your entire arterial and vascular system. Since arterial stiffness is a major underlying cause of cardiovascular disease, ASF is a major indicator of your level of risk for cardiovascular events like stroke, heart attack, and even dementia.
TruHR	TruHR is based on a medical grade "beat-to-beat" heart rate algorithm which is similar to that derived in hospital settings and is considered to be more accurate than current heart rate measurement deployed in wearables and other health devices.
Vitals Risk	Vitals Risk identifies the risk of cardiovascular disease based on vascular pressure on the body's organs. The Vitals Risk score provides a indication of risk of heart, brain, and other organ damage.

Source: Company

CDX intends to include a free and premium version of the CONNEQT app allowing for the personalisation of service offerings to allow subscribers to manage their chronic diseases and maintain a healthy lifestyle. The Arty ecosystem will also facilitate payments to physicians under US Medicare 'remote monitoring codes.

PATENT SUMMARY

Many of the CDX patents described are defined as a method of interpretation. This means that **intellectual property protection remains regardless of expiry** as the most important attribute - the ability or 'know how' to apply the method of data interpretation – is not described.

Patent Title	Patent Number/app	Applicable Product	Filed/Grant Date	Expiry Date	Country
Non-Invasive Brachial Blood Pressure Measurement	11006842	BP Cuff Devices	18/05/2021		Global/US
Central Aortic Blood Pressure and Waveform Calibration Method	10835132	BP Cuff Devices	17/11/2020		Global/US
Central Pressure Waveform with Features Preserved	17/220,200	BP Cuff Devices, Cardiovascular devices	1/04/2021		US
Non-invasive Blood Pressure Measurement	15/943,970	BP monitoring device, Wearable devices	3/04/2018		Global/US
Optimization of Pacemaker Settings With R-wave Detection	9220903	Pacemakers	29/12/2015		US
Method of Estimating Pulse Wave Velocity	8273030	Arterial Stiffness Devices	25/09/2012		US
Optimization of Pacemaker Settings	8112150	Pacemakers	7/02/2012		US
Methods for Determining Cardiac Output	8679025	Cardiac output device, ICU monitoring devices	25/03/2014		US
Step rate optimization device	8439844		14/05/2013		
Simplified Systolic and Pulse Pressure Method	7628758	BP monitoring device	8/12/2009		EU/JP/US
Measuring Central Pressure with a Brachial Cuff	9974450	BP Cuff Devices, Cardiovascular devices	22/05/2018		US
Method of Distinguishing between Vasoconstriction and Vasodilatation as a Cause of Hypotension	7442169	Emergency Medical device	28/10/2008		US
Estimating Central Aortic Pressure from Brachial Cuff Pulse	9314170	BP Cuff Devices, Cardiovascular devices	19/04/2016		EU/JP/US
Optimization of Pacemaker Settings with Electrogram	8112150	Pacemakers	7/02/2012		US
Wearable Device with Plethysmogram Sensor	17/331,873	Wearable devices	May 2020		US

Source: Company

The most relevant patents to CDX's new CONNEQT product range include:

Wearable Device with Plethysmogram Sensor - 17/331,873

This patent applies to wearable devices and relates to a number of methods of calculating central pressure waveforms and cardiovascular features from a finger or peripheral artery-based readings gained from a photoplethysmogram (PPG) sensor.

Non-invasive Blood Pressure Measurement - 15/943,970

This patent provides a novel method of estimating BP using features from arterial pulse waveform without using a cuff. The method can be implemented on wearable devices.

Estimating Central Aortic Pressure from Brachial Cuff Pulse – 9314170

This patent relates to the non-invasive estimation of heart pressure, pressure waveform, cardiac function features and arterial properties using a conventional BP cuff.

A detailed description of each patent can be found via (LINK).

CARDIEX PRODUCT DEVELOPMENT ECO-SYSTEM

CDX's product development ecosystem incorporates several strategic relationships with high calibre entities including Butchershop, Mobvoi, Fenda Technology, Andon, and LifeQ.

While an overview of key relationships held is provided below, the extensive range of CDX partners can be viewed via (LINK).

Mobvoi

Since September 2020, CDX has been working closely in commercial partnership with Mobvoi, a global consumer electronics company, to develop a new smartwatch. The smartwatch will sit under the Mobvoi brand and incorporate some of CDX's advanced heart health features, its proprietary "Arty" heart health analytics platform, and components of its FDA-cleared SphygmoCor technology.

This commercial partnership with Google-backed Mobvoi follows a Joint Development Agreement (JDA) initiated between the parties in 2019, which focused on the feasibility of launching a wearable device fitted with a PPG sensor that could support CDX's patented cardiovascular and consumer health features. With that being successfully achieved and prototyped, Mobvoi then proceeded to develop the hardware and firmware for the new smartwatch, while CDX was responsible for integrating a proprietary, Mobvoi specific suite of health algorithms into the smartwatch. In November 2021 the companies jointly announced the commercial release of the smartwatch was "imminent".

Andon

In September 2020, CDX entered into a co-development and commercial partnership agreement with Andon, one of China's largest manufacturers of home-use medical electronic devices, for the manufacture of the CONNEQT Pulse. Andon is hailed as a pioneer in the global mobile health industry and specialises in R&D, production and commercialisation of home healthcare products and health management cloud platforms. Andon introduced the world's first IOS connected BP monitor in 2010 and has developed a range of personal health and wearable devices including blood glucometers, pulse oximetry, ECG, heart rate monitors and other devices.

The three-year agreement significantly expands the commercial market opportunity for CDX in the home consumer health device market through the development of the Pulse device. Under the agreement, Andon will purchase SphygmoCor chips to integrate into the Pulse device and will also be responsible for obtaining regulatory approvals in all target markets. CDX will remain the sole and exclusive owner of all IP rights to central blood pressure monitoring and will have sole distribution rights in all territories worldwide under the CONNEQT brand.

Fenda Technology

In April 2021, CDX entered into a manufacturing & development partnership agreement with Fenda Technology, a leading Chinese wireless solution provider and manufacturer of smart wearable products. The three-year agreement will initially focus on the CONNEQT Band and eventually extend to other devices in development. Fenda is a globally recognised provider of intelligent hardware design services, software development, electro-acoustic products, wireless modules, smart wearables, and cloud technology. Its technical R&D team partners with leading international brands to develop medical-grade heart-rate smartwatches, smart wristbands, smart skin detectors, and other devices.

Fenda will lead manufacturing activities related to the CONNEQT Band while CONNEQT will provide creative, design, product specifications, and drive promotion and sales of the wearable device. The agreement is a pivotal step toward FDA clearance and commercialisation of the CONNEQT Band.

LifeQ

In June 2021, CDX announced a strategic collaboration agreement with LifeQ, a world-leading provider of biometrics and health information metrics for wearable devices. LifeQ will contribute to the design and development of the CONNEQT Band. The joint IP incorporated into the Band is expected to benefit the development process and deliver an innovative combination of clinical and lifestyle-related health metrics, solutions, and insights for consumer, healthcare, and enterprise customers.

Under the Agreement, CONNEQT will own the Band and be responsible for building the device, obtaining FDA clearance, and commercialising and marketing the device while LifeQ will also promote the sales and distribution of the device in select enterprise and business markets. LifeQ will also be responsible for powering the delivery of biometric information obtained by way of the wrist-based PPG sensor, and integrating its on-device software for data analytics and synchronisation to CONNEQT and LifeQ cloud-based networking infrastructure.

Importantly, the Agreement allows for both companies to leverage their respective expertise in PPG-based biometrics to enable the CONNEQT Band with continuous monitoring of general health parameters as well as spot-checking capabilities for medical purposes and actionable health insights.

Butchershop

In July 2021, collaboration began with Butchershop's product development and marketing teams. Butchershop is a creative brand consultancy established in Silicon Valley in 2009 that has worked in collaboration with some of the world's largest and established brand names. Butchershop is one of the most progressive and sought-after brand transformation companies in the world that has serviced over 700 clients since 2013, raised more than $16bn in venture capital funding and helped more than 30 companies reach unicorn status (+USD$1bn company value).

Butchershop will focus on the growth and transformation of the CONNEQT brand and the development of the global go-to-market strategy with the primary duty of developing a brand experience and eCommerce platform that will help to connect CONNEQT with its consumers.

Real Chemistry

Real Chemistry is a global health innovation company based in San Francisco that provides marketing and data analytics consulting services. Real Chemistry is described as a forward-looking and innovative organisation that embodies the entrepreneurial direction of its founder, Jim Weiss, who formed the company in 2001.

Real Chemistry's primary focus is market segmentation, customer profiling and the establishment of a user-specific strategy that will overlap the go-to-market strategy established by Butchershop.

A key innovation is their proprietary, purpose-built social media analytics platform, which is the only healthcare-specific toolkit that allows for the rapid identification of social media trends and habits among physicians, patient advocates, life science professionals and media.

CARDIEX REVENUE STREAMS

ATCOR

CDX's ATCOR division derives revenues from the sale, leasing, and licensing of its "gold standard" FDA cleared clinical XCEL SphygmoCor device used for the measurement of the central arterial waveform pressure in adults. The XCEL is a specialist medical device that sells for between USD$6,000-$12,000 per unit depending on the use-case. This price is due to the relative complexity of its operation, the arterial data insights provided to customers, and its uniqueness in clinical application.

ATCOR's XCEL customers include research and pharmaceutical companies such as GSK, Bayer, Novartis, and AstraZeneca, specialist physicians such as Stanford Clinic and MAYO Clinic and US health care providers (IDN's), who distribute to affiliate caregiver and hospital networks.

ATCOR also receives revenue from data management services, the licensing of algorithms to consumer device companies such as Mobvoi, and chip sales to other medical device companies such as SunTech Medical.

ATCOR also leases devices to pharmaceutical companies for clinical trials, generally recognising revenue through sale of goods or lease income from both operating leases and finance leases. In addition, service, freight, and royalty income is recognised as per terms of signed contracts. With associated data services, the lifetime recognised revenue on a leased XCEL unit is ~USD$26k.

CONNEQT

CDX's pivot to the retail and consumer sector is under the new CONNEQT brand, launched in May 2021. CDX's CONNEQT division produces home, consumer and primary care devices and the associated digital solutions and companion apps. All products are targeting "FDA-cleared status" and the consumer focus aspires to enable consumers to "connect with a better life".

CONNEQT PULSE Device Sales - CDX and Andon are in the process of finalising documentation for the lodgement of the FDA submission to support the new Pulse home cBP monitoring device. Originally on track for a Q2/FY22 launch, we are assuming a June 2022 launch for the purposes of our forecasts. With an initial production run of 50k units expected, we are forecasting modest volumes for the first year of sales, ramping up from c.1k per month initially to c.5k per month by the end of the year. Channel activation partners Real Chemistry and Butchershop will drive the digital sales campaign and sales development. After the first year, we forecast sequential quarterly sales growth of 20%, declining thereafter.

We assume a unit price of US$150. While the initial unit price reflects a premium when compared to other blood pressure monitors, we anticipate that CDX will be able to leverage its positioning as the only consumer focused FDA-cleared dual blood pressure monitor.

CONNEQT Band Device Sales - Prototyping of the new CONNEQT Band is currently being concluded and the company is working towards the finalisation of its FDA lodgement by June 2022. We assume that initial sales will commence by December 2022, and at similar volumes to the Pulse device, albeit with a higher medium-term sequential growth profile which reflects the relatively strong expected growth in health wearables. Due to the ability to leverage the anticipated FDA-cleared status, we assume an initial unit price of US$300 for the CONNEQT

Band. Unit cost dynamics are expected to be similar to the CONNEQT Pulse device. Also, we expect that initial unit customer acquisition costs will be high before declining materially over time as the body of sales data evolves and is reinvested in the sales process, and as sales volumes increase.

CONNEQT APP SUITE Subscription Sales - Both the CONNEQT Pulse device and the CONNEQT Band will be supported with the companion CONNEQT app, which will connect consumers to a full suite of health parameters and analytics that can be shared remotely with designated healthcare practitioners. The digital health eco-system in the app will provide customers with 24/7 remote support while also providing physicians with billable remote patient monitoring (RPM) codes under US Medicare coverage - enabling physicians to bill for a number of coded medical services. The development and incorporation of this ecosystem into the CONNEQT app parallels the increased adoption rate seen recently in telehealth services.

All purchasers of CONNEQT products will be required to download the CONNEQT app in order to activate the basic features of their device. Premium features will then be offered via subscription (a "Freemium" model). We assume a US$5 monthly premium subscription fee for customers who purchase a CONNEQT Pulse or CONNEQT Band and upgrade to a premium subscription. We forecast that premium subscription adoption will increase over time to ~10% of total users.

PHYSICIAN PORTAL FEES - CDX is developing a Web portal under the CONNEQT brand to support physicians who will use a proposed medical version of the Pulse device, the PULSE MD. This will allow participating physicians to engage their patients in support of the move to telehealth solutions whilst simultaneously utilising Medicare codes for RPM payments.

We have modelled this on the basis that 1% of Pulse sales relate to the proposed PULSE MD model and that these sales represent physicians who are treating patients using RPM reimbursement codes. Our forecasts allow for a flat SaaS fee of US$200 a month in this instance and assume these payments commence in January 2023 following FDA clearance and launch of the medical version of the Pulse blood pressure monitoring device.

REVENUE SUMMARY

FYE 30 June			2022	2023	2024	2025	2026
XCEL	Revenue	US$m	5.0	5.3	5.5	5.8	6.1
PULSE	Units		500	34,000	94,268	169,545	265,342
	Unit Price	US$	150	150	150	150	150
	Revenue	US$m	0.1	5.1	14.1	25.4	39.8
BAND	Units		0	19,000	86,040	199,298	432,566
	Unit Price	US$	300	300	300	300	300
	Revenue	US$m	0.0	5.7	25.8	59.8	129.8
APPS	Device Base		500	53,500	233,808	602,651	1,300,560
	Penetration		5%	6%	7%	7%	8%
	Subscribers		25	3,103	15,431	44,596	106,646
	Monthly Fee	US$	5	5	5	5	5
	Revenue	US$m	0.0	0.1	0.5	1.8	4.6
PORTAL	Participating Physicians		0	540	3,544	9,114	18,252
	Monthly Fee	US$	0	200	200	200	200
	Revenue	US$m	0.0	0.3	2.1	5.5	11.0
TOTAL REVENUE		**US$m**	**5.1**	**16.4**	**48.1**	**98.3**	**191.2**

Source: BOEQ

VALUATION

We have initially adopted a 5-year DCF based target price methodology. We believe this is conservative as it only reflects early product life cycle growth from the new Pulse cBP monitor and CONNEQT Band and does not reflect the medium and long-term potential of success in a market expected to be worth nearly US$200bn. The risks are to the upside, as we believe that CDX' leadership in the emerging medical-grade consumer segment will drive increased market share of product sales well beyond the scope of our valuation.

Our choice of equity beta contemplates the conclusion of the product development stage with FDA clearance and the evolution of an early sales growth profile before the company moves toward sustainable profitable long-term growth. Our calculations and approach are set out below:

($m) 30-June	2022	2023	2024	2025	2026
Revenue	5.5	16.4	48.1	98.3	191.2
Revenue Growth	0%	197%	193%	104%	95%
EBITDA	-6.5	-0.5	5.9	17.7	43.0
Growth Rate	-22%	92%	1278%	199%	144%
EBITDA Margin	-128%	-3%	12%	18%	23%
Tax Paid	-	-	-	(3.1)	(8.7)
P&L Tax Rate	0.0%	0.0%	0.0%	30.0%	30.0%
Working Capital	0.2	0.4	(0.4)	(0.7)	(1.3)
W/C as a Pct Sales	14.5%	2.6%	0.9%	1.0%	1.0%
Capital Expenditure	(0.2)	(0.5)	(1.4)	(2.9)	(5.7)
Capex as a Pct Sales	3.0%	3.0%	3.0%	3.0%	3.0%
Free CashFlow	(6.4)	(0.6)	4.0	10.9	27.4
Date: 19-Dec-21	30-Jun-22	30-Jun-23	30-Jun-24	30-Jun-25	30-Jun-26
Discount Factor:	1.00	0.90	0.82	0.74	0.67
Present Value of Free CashFlow	(3.4)	(0.5)	3.3	8.1	18.3

Terminal Value Calculation

Terminal Year Ending	30-Jun-26
Terminal Year CashFlow	28.2
Terminal Growth Rate	3.0%
Terminal FCF Multiple	9.5
Terminal Value	268.4
Present Value of Terminal Value	179.5

Key Assumptions Used

Equity Beta	1.5
Target Leverage (ND/ND+E)	0.0%
Unlevered Beta	1.5
Risk Free Rate	3.0%
Equity Risk Premium	5.0%
Cost Of Equity	10.5%

Equity Valuation Summary

Present Value of Free Cash Flow	25.8	m
Present Value Of Terminal Cash Flow	179.5	m
Other	-	m
Less: Net Debt (Cash)	(5.4)	m
Total Net Present Value Equity	210.6	m
Number of Shares (Million)	1,328.3	m (Fully Diluted)
Equity DCF Value per Share	$0.16	per share
Franking Credits Value Per Share		per share
Equity DCF Per Share	**$0.16**	per share

Source: BOEQ

COMPANY BACKGROUND

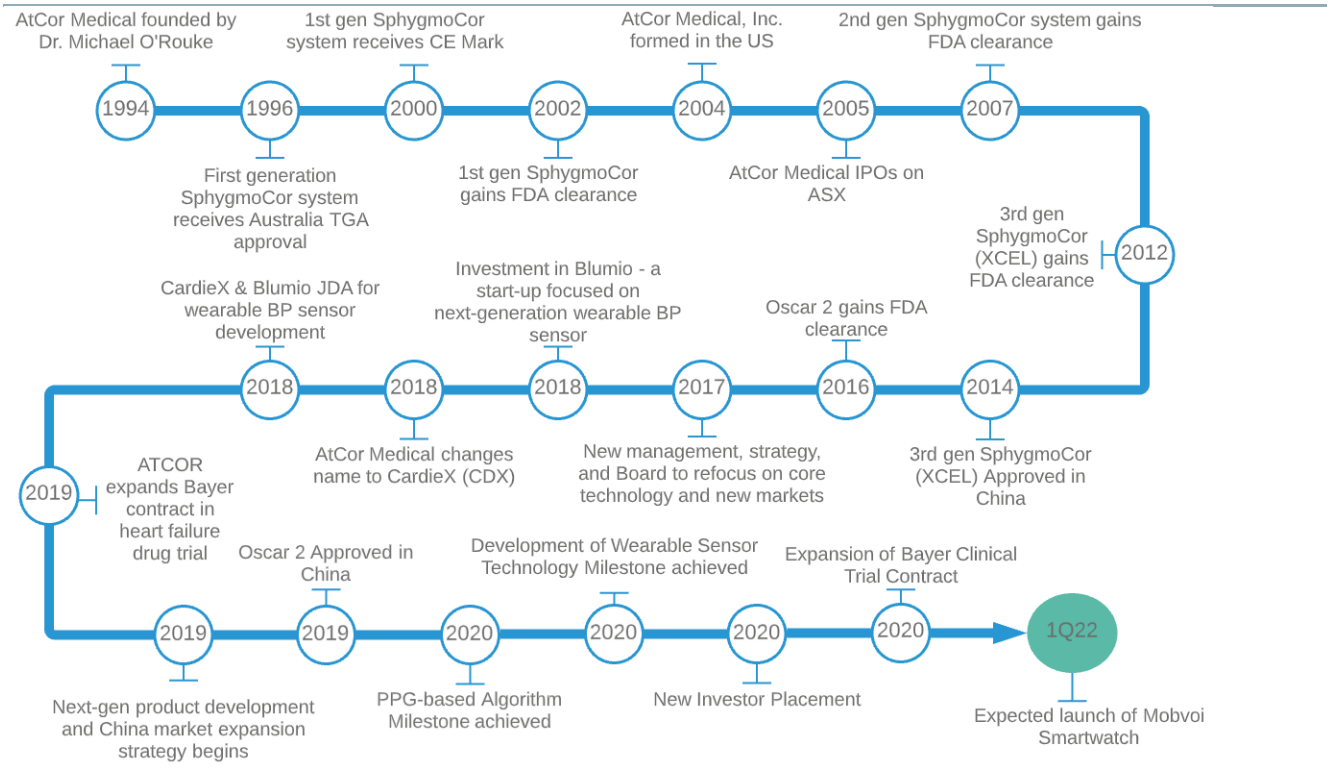
CDX is a global health technology company with industry-leading blood pressure monitoring technology used to provide support in the diagnosis and management of hypertension and cardiovascular disease (CVD). Hypertension and CVD are linked to the development of several other disorders such as obesity, orthopaedic health, Alzheimer's, renal disease, and diabetes as further outlined in the Appendices. CDX technology is therefore well placed to provide enhanced support in the management of a wide range of disorders as well as hypertension and CVD.

CDX **unique FDA-cleared and patented SphygmoCor technology has been consistently acknowledged as the gold standard, and an FDA benchmark, in measuring arterial stiffness and central blood pressure since 2001. It has also been featured in over 1,600 peer-reviewed studies with over 4,500 SphygmoCor systems used in clinical-grade trials worldwide by medical and research institutions and global pharmaceutical companies.**

Founded in 1994 by Dr. Michael O'Rouke, the company was formerly known as ATCOR Medical Holdings Limited before changing its name to CardieX Limited in June 2018 and splitting into two divisions, ATCOR and CONNEQT. The ATCOR division is a world-leading developer of medical devices used to measure arterial stiffness and central blood pressure waveforms. ATCOR's principal focus is developing, marketing, and distributing its XCEL and the Oscar 2 (in partnership with SunTech Medical) devices to clinical markets.

Pivoting this established technology to the consumer segment, CDX's new CONNEQT division is developing innovative wearable and home health devices focused on heart health incorporating the company's patented medical, fitness, and wellness parameters.

COMPANY HISTORY



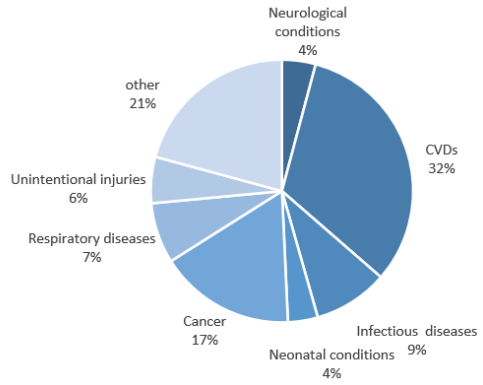
Source: Company / BOEQ

ABOUT HYPERTENSION & CARDIOVASCULAR DISEASE

Hypertension, or persistently high blood pressure, is one of the most prevalent global health issues impacting more than 1.28 billion people worldwide and is an important risk factor for cardiovascular disease (CVD), which remains the leading cause of mortality. Collectively, hypertension and CVD's impact the lives of more than 2.4 billion worldwide [1, 2].

Accounting for 32% of global deaths (approximately 17.9 million) in 2019, CVDs are the leading cause of mortality and a contributing factor in the development of other health issues such as kidney disease, diabetes, and dementia [3].

GLOBAL MORTALITY PROFILE (2019)



Source: World Health Organisation

While CVD is more prevalent in low- and middle-income countries (LMICs), in the US it is estimated that over 40% of the population has some form of CVD and the total cost (indirect & medical) is projected to double from $555 billion in 2015 to $1.1 trillion by 2035 [4, 5].

A key issue is that the reliance on brachial blood pressure (bBP), as a stand-alone measure or predictor of CVD risk, can result in misdiagnosis, overtreatment or undertreatment and incorrect medical advice. In comparison, central blood pressure (cBP), the measurement of arterial pressure at the descending aorta of the heart, is 50% more accurate at predicting cardiovascular events, identifies approximately 70% more patients that are potentially at early-stage risk, and is estimated to potentially reduce global prescription drug treatment costs by $56bn annually[6].

The reliance of bBP as a surrogate for cBP has been driven by the lack of a practical and cost-effective means of obtaining cBP in the clinic and the home. The direct hospital (ICU) method to obtain cBP involves cardiac catheterization and recording of the blood pressure in the ascending aorta using a pressure-sensing catheter. However, this is highly invasive, technically demanding, and clearly unsuitable for use in routine screening of large populations or in the home.

As the only company with an FDA-approved technology capable of providing a non-invasive cBP reading with full pulse waveform output features and analysis in all adult populations in the USA, CDX has the potential to redefine the blood pressuring reading landscape, reduce risks associated with a reliance on bBP readings and gain a first-mover advantage by providing a home use clinical-grade cBP product to those in need.

The immediate target users identified above make up a portion of the **Global Blood Pressure Monitoring** market, which is expected to grow from US$1.49bn in 2020 to over US$3.21bn by

2028 [7]. Key competitors within this market include SunTech Medical Inc, Omron Healthcare, Hill-Rom Holdings, Phillips, and GE Healthcare.

The second key market segment that CDX is exposed to is the **Health Wearable Market**, which was valued at US$29.76bn in 2020 and is expected to balloon to over US$195bn by 2027 [8]. Key competitors in this market include Apple, Fitbit, Samsung, Amazon, and Garmin.

While many of these larger companies are household names, CDX:

- has a 20-year head start in cBP and arterial health technology;
- has the needed know-how and;
- has developed a suite of patented algorithms that turn data into medical grade diagnosis.

This is essential as wearables evolve to require more medical grade features. These capabilities uniquely position the CONNEQT Band as a "medical-grade" wearable compared to a general "health" wearable such as Apple or Fitbit [9].

A testament to the value of CDX's technology and patents is the series of lawsuits Apple has faced related to patent infringement and anticompetitive behaviour brought forward over their use of heart rate sensor technology and the blocking of third-party algorithms used in heart health diagnostic services [10, 11, 12].

Finally, there is the **digital health market** which is expected to grow from $350bn in 2019 to over $600bn by 2024 [13]. This market intersects the blood pressure monitoring and wearables markets which are data rich. CDX's digital ecosystem provides a unique range of diagnostic readings and connects healthcare professionals to their patients allowing for remote monitoring and improved disease management.

CDX's core innovations in non-invasive central blood pressure monitoring and arterial health are set to redefine management practices for **hypertension** and **cardiovascular disease**. CDX and its suite of devices can be tailored for risk assessment and management of multiple clinical disorders:

CARDIEX FEATURES CAN BE TAILORED TO MANAGE

Cardiovascular disease	Liver Disorders	Arterial Stiffness	Vascular Aging
Stroke	Dementia	Diabetes	Inflammatory Diseases
Renal Disease	Alzheimer's'	Preeclampsia	Environmental Toxicity

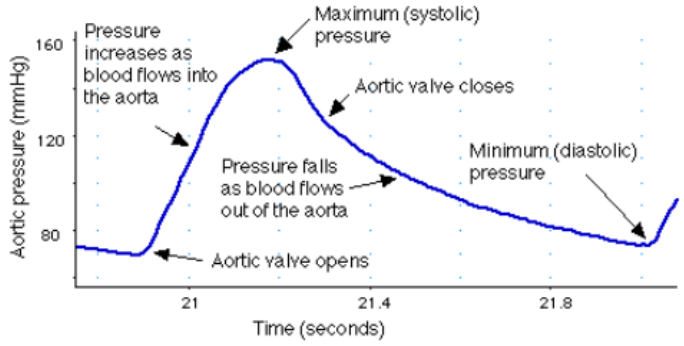
Source: Company

CDX's new suite of products and the associated apps are part of a revolutionary personal wellness eco-system which will empower the individual to take the management of their health to a new level of sophistication based on medical grade data and health insights. The ecosystem is cloud based and designed to include the individual's physician, taking advantages of a paradigm shift in technology and emerging preferences for telehealth solutions.

THE UNDERLYING SCIENCE

The two most common readings used to determine blood pressure are brachial blood pressure (bBP) and central (aortic) blood pressure (cBP). The pumping of the heart causes pressure in the aorta and arteries and if this pressure is recorded over time, a waveform can be observed, which reflects several insightful characteristics of the heart, arterial network, and vascular tree [14].

In practice, bBP is more common because it can be gained non-invasively using a simple brachial cuff (upper arm cuff). However, bBP provides a different reading from cBP because the waveform and characteristics of the systolic, diastolic, and mean pressures (SP, DP and MP respectively) change as they travel from the aorta:



Source: DynaPulse

As a result of the differences in arterial properties between the two locations (i.e. between the arm and the aorta/heart), bBP is not as indicative of cardiovascular risk and can potentially provide misleading information about arterial health among other things. A waveform observed using cBP reflects the status of the cardiovascular system as it is affected by cardiac output, arterial stiffness and left ventricular (LV) function. Because cBP is the pressure that key organs such as kidneys, heart, brain, and arteries are exposed to, its waveform provides more insight into cardiovascular function, load, arterial stiffness, and other key attributes.

Overall, cBP is considered 50% more accurate at predicting cardiovascular events, the possibility of end-organ damage and other complications associated with elevated blood pressure [15, 15.a]. Additionally, basing medical advice on cBP readings could provide an annual cost savings of 16% or $56bn in global prescription drug expenses [16].

CDX has successfully developed a non-invasive technology to measure the central waveform and calculate SP and DP as well as other unique cardiovascular parameters. Their technology derives cBP by applying a set of novel **proprietary algorithms** to arterial measurements. These algorithms derive a generalised transfer function, which transforms the brachial (radial) pulse waveform into a central blood pressure waveform. This process forms the foundation of their SphygmoCor technology and intellectual property.

We believe that these capabilities will allow CDX to redefine the blood pressure and arterial health landscape, provide more accurate information using cBP readings and gain a first-mover advantage by providing home use clinical-grade products to those in need.

APPENDIX – RECENT DEVELOPMENT SUMMARY

20 October 2021	CDX and Mobvoi prepare for commercial launch on new smartwatch releasing images of the new device.
6 October 2021	CONNEQT and Fenda Technology enter product development and manufacturing partnership for CONNEQT devices.
22 June 2021	Strategic Partnership with leading provider of biometrics and health information, LifeQ, is announced.
17 May 2021	CDX announces the launch of their CONNEQT brand as a subsidiary
12 May 2021	Blood pressure measurement technology, SphygmoCor, receives additional US patent
24 September 2020	Joint venture with Mobvoi picks up the pace with the announcement of a new smartwatch in development that will include CDX's SphygmoCor technology.
18 September 2020	CDX granted European patent covering its SphygmoCor technology used in cuff-based brachial blood pressure (BP) devices.
7 September 2020	CDX announces partnership with Andon in the development of the world's first cloud-connected home-use BP monitor.
29 January 2020	CDX engages leading mobile App, and software infrastructure developer MEDL Mobile to undertake development and design of consumer app.
11 September 2019	Joint Venture with google wearable platform partner in China, Mobvoi, begins with the development of smartwatch.
27 June 2019	Former Masimo Vice President of Marketing, Chris Dax, appointed Vice President of Operations to accelerate sales and marketing (now President - ATCOR).
5 June 2019	Successful measurement of central blood pressure achieved using CDX algorithm and Blumio sensor.
29 May 2019	Senior healthcare executive Rhonda Welch appointed Vice President of Global Marketing.
12 December 2018	CDX and Blumio execute Co-Development Agreement to jointly develop intelligent sensor technology to be integrated into wearable devices.
26 October 2018	CDX wins medical device contract with AstraZeneca.
24 July 2018	First wearable trial is completed with promising results for wearable blood pressure sensor technology.
3 July 2018	New appoints of senior executives to support new growth strategy sees former Masimo executive, Zi Han Lin, and former Johnson & Johnson executive, Rhonda Welch, join the team.
30 May 2018	Name change to CardieX becomes official.
21 May 2018	First wearable trial in collaboration with Blumio and Macquarie University announced.
23 April 2018	Completes heavily oversubscribed share placement and rights issue to fast-track new strategic plan in wearables, eMedicine, and digital health
14 March 2018	First glimpse at the new direction of company provided in an investor presentation.
14 March 2018	ATCOR repositioning strategy begins with rebranding name change to CardieX and collaboration agreement with Blumio.
20 December 2017	Niall Cairns is appointed as Non-Executive Director.
30 November 2017	ATCOR appoints Craig Cooper as CEO

Source: ASX, Company

APPENDIX – RISKS

Technological Leadership – CDX's ATCOR division and its XCEL device is recognized as the "gold standard" in FDA cleared, clinical grade, non-invasive cBP monitors. This provides a unique leverage point with which to engage the consumer sector with the CONNEQT brand. Although a limited number of companies offer cBP measurement for clinicians, none have the full feature waveform capabilities and breadth of FDA clearance that ATCOR enjoys with the XCEL and their SphygmoCor technology. Should a competitor develop and obtain similar FDA clearances for a similar device either in the clinical or consumer space, this leadership position could be relinquished.

In the relatively mature clinical marketplace, ATCOR's XCEL is well established with over 4,500 installations across 34 countries. Given these market parameters and the challenge of competing against a ubiquitous incumbent, it is extremely challenging for an aspirant to justify the expense of marketing an FDA cleared device in direct competition to CDX's XCEL device.

Customer Acceptance – CDX are new to the consumer sector and should their new products fail to meet expectations, CDX will face the risk of consumer rejection whilst carrying a relatively small product range. We believe that the involvement of leading channel partners and digital marketing specialists Real Chemistry and Butchershop mitigate significantly against this risk given their extensive consumer and marketing experience, in particular in the health and well-being marketplace.

Product Pricing and Discounting – The retail blood pressure monitor and health wearable markets are serviced with a broad range of products both at the premium and volume ends of the spectrum. CDX will have to achieve and maintain its credentials as a premium differentiated product, i.e., a premium medical-grade consumer product with FDA clearance, against a sea of lesser but significantly cheaper products.

Again, we believe that appropriate strategies driven by CDX' channel partners (including Real Chemistry and Butchershop) will successfully link superior health outcomes to the new product suite and secure CDX' market position and brand.

Outsourced Production – CDX production using external contractors potentially opens their supply chain to the risk of disruption beyond their control. To the extent we are talking about sovereign risk, this risk is potentially mitigated to the extent these contractors are located close to or in the markets served. To the extent this risk is supplier-specific, it can only be mitigated by hosting multiple providers in order to stimulate a more competitive and secure supply outcome.

Regulatory Clearance – The regulatory environment does not currently drive the consumer market, however, is essential to the efficacy of CDX clinical market strategy. Any adverse regulatory determination such as by the FDA would indirectly impact CDX consumer strategy.

Sales Ramp Up– Our sales ramp up profile is aggressive and reflects success. It is based on the experience of similar products, but ultimately the result for CDX new product suite is difficult to assess in the absence of actual sales data.

Profitability – The evolution of the data-driven digital sales process and the expected lowering of customer acquisition costs will ultimately drive future profitability. In the absence of such data at this stage, it remains difficult to assess.

APPENDIX – BOARD OF DIRECTORS

The CDX board of four has a total of two non-executive members. There is a considerable blend of backgrounds and relevant industry experience across the board, who hold (principally Craig Cooper and Niall Cairns jointly through C2 Ventures P/L), 22% of the ordinary shares in the company.

Mr Niall Cairns B.Ec, CA & FAICD - Executive Chairman and Director, appointed 20 December 2017, appointed Chairman on 27 February 2019.

Mr Cairns is a Sydney based technology growth investor with over 25 years of track record of value creation, restructuring, and exits in both listed and unlisted companies having assisted in driving the global growth of over 50 companies in sectors as diverse as digital media, Agtech, Medtech, consumer Internet, and SaaS based businesses. Niall is currently the Chairman of Tambla Limited, Kestrel Capital, Kestrel Growth Companies Ltd and a non-executive director of Consolidated Financial Holdings, DTS Limited, and Harri LLC.

King Nelson BA, MBA – Non-Executive Director (appointed 13 November 2015)

King was elected to the Board in November 2015. He brings more than 30 years of diverse experience and expertise with medical devices. He is a former President and CEO of Uptake Medical Corporation, a company focused on treatments for emphysema and lung cancer. Previously, he served as president and CEO of Kerberos Proximal Solutions, which was acquired by FoxHollow Technologies, and as president and CEO of VenPro, a heart valve business acquired by Medtronic. Both these companies specialized in devices for the cardiovascular system. Prior to that, he spent 19 years with Baxter International and American Hospital Supply Corporation in roles of increasing responsibility that included division president for Dade Diagnostics, Bentley Labs, and Baxter's Perfusion Services. King is also currently CEO of Q'Apel Medical – a Medical device company focused on neurovascular disease.

Mr Craig Cooper B.Ec, LLB (Hons) - Executive Director and Chief Executive Officer (appointed 1 December 2017)

Mr Cooper was appointed as Chief Executive Officer effective 1 December 2017. Mr Cooper has founded multiple successful health, digital media, technology, and wellness businesses – and was also the co-founder of the telecommunications company Boost Mobile - one of the leading mobile phone business in the USA. Craig is recognised as a global expert and thought leader in mobile and wireless technology as well as digital health and med-tech-related businesses. His venture capital funds have raised over A$6 billion in capital and have funded some of the most significant global digital media technology companies including Buzzfeed and The Huffington Post.

Jarrod White B.Bus, CA - Non-Executive Director (appointed 21 May 2020)

Mr. White is a Chartered Accountant and founding Director of Traverse Accountants Pty Ltd, a corporate advisory and chartered accounting firm. In conjunction with his corporate advisory roles at Traverse Mr. White has been appointed Company Secretary and Chief Financial Officer of several other listed entities that operate on the Australian Stock Exchange and has a sound knowledge of corporate governance and compliance. Jarrod has also been an advisor to a wide range of capital raisings, IPO's and reverse takeover transactions and has a focus on working with growing companies in the exploration, technology and biotech space.

APPENDIX – ARTY FEATURES

	Heart Stress™ (HS)	Measures the load on the heart due to the hardening of arteries. Extra load causes the heart to work more, which leads to the development of cardiovascular disease. If heart stress is high, it is a greater sign of cardiovascular risk. Heart Stress can be reduced by treatment and changes in lifestyle (diet, exercise).
	Exercise Capacity (eCap®)	Measures the heart's capability to provide oxygenated blood to cells based on the body's performance demands. Unlike VO2 max, eCap® is a measurement of potential exercise endurance based on cardiovascular health.
	TruHR®	Accurate, medical-grade, beat-to-beat heart rate measurements equivalent to standard ECG-based methods. TruHR® is more accurate than heart rate measurements commonly found in other consumer wearables.
	ArtyAge™	Compares your heart health with other healthy people in your age group. This helps determine the actual biological age of your heart in comparison to your chronological age. ArtyAge is based on pulse wave analysis (PWA) of large scale population studies.
	Arterial Stiffness Factor™ (ASF™)	Measures the flexibility of your entire arterial and vascular system. Since arterial stiffness is a major underlying cause of cardiovascular disease, ASF™ is a major indicator of your level of risk for cardiovascular events like stroke, heart attack, and even dementia.
	Irregular Heartbeat	Our Irregular Heartbeat feature helps a user identify if they are experiencing an abnormal heartbeat reading - without the use of an ECG. Abnormal heartbeats are a sign of Atrial Fibrillation, which is the leading cause of stroke.
	truHRV™	truHRV™ heart rate variability measurement uses ATCOR's medical grade "beat-to-beat" heart rate algorithm to indicate the health of a user's autonomic nervous system (ANS), and the balance between one's parasympathetic (rest and relax) and sympathetic (fight or flight) nervous systems. Tracking one's heart rate variability is a good indicator of biological stress.
	VitalsRisk™	VitalsRisk identifies the risk of cardiovascular disease based on user data. Our VitalsRisk score provides an individual's risk of heart, brain, and other organ damage.
	BP Variability (BPV+®)	The amount of measurement-to-measurement variability of brachial blood pressure, representing how stable one's blood pressure is over time.
	Heart Performance Index™ (HPX™)	Heart Performance Index (HPX™) measures how efficiently an individual's heart works to meet the body's demand for oxygen and blood flow. HPX is important in determining how healthy an individual is. Research has shown exercise and a healthy lifestyle can help improve your HPX score and improve your day to day performance.
	Arty® Score	Your Arty® Score combines several ATCOR parameters such as Heart Stress, Exercise capacity (eCAP), Heart Rate (HR+) and Arterial Age. Arty® aggregates these cardiovascular data into a comprehensive, personal heart and arterial health score. Arty® quantifies your unique cardiovascular risk profile.
	Comprehensive CV Dashboard	See your entire cardiovascular profile, track all your CV health and fitness performance parameters, manage your full suite of Notifications, Insights, Events and Health Tips.
	Fitness & Diet Coaching	By monitoring your heart health and other data, we create customized workouts and nutrition plans, fully personalized for you.
	Lifestyle Coaching	By monitoring your heart stress over time and combining it with other inputs we recommend lifestyle adjustments to maximize your cardiovascular health and wellness.

Source: Company

APPENDIX – CBP AND PREECLAMPSIA

Extract from ATCOR Medical Report dated July 2020 – "Optimizing Gestational Hypertension Treatment Using Central Blood Pressure":

"Hypertensive disorders of pregnancy occur in 1 in every 12 to 17 pregnancies. Approximately 25% of cases of gestational hypertension progress to preeclampsia. Proactive identification of populations at risk of preeclampsia is a necessary part of pregnancy management.

Elevated central aortic pressure predicts preeclampsia. The risk of preeclampsia with elevated central aortic pressure appears to be more sensitive than with brachial pressure. Brachial and central aortic pressures provide complimentary information for risk prediction and management decisions.

Measurements of central arterial pressures can be incorporated into the current approaches to hypertension management as the dual arterial pressure SphygmoCor® XCEL device, the only FDA cleared medical device for non-invasive central arterial pressure waveform analysis for all adults, can provide both brachial and central aortic pressures in the same clinic setting.

Incorporation of central aortic blood pressure monitoring into the treatment paradigm for hypertensive disorders of pregnancy can be utilized as follows: (a) confirmation of hypertension so that initiation of medication is more likely to be the correct decision for a patient, (b) avoiding initiation of medication when white coat hypertension is suspected, (c) confirmation that increased treatment may not be needed, and (d) targeting when to consider reduction of medication.

Based on current technology, the availability of a non-invasive dual arterial pressure measurement system, the compelling clinical rationale and the clinical published research, incorporation of central aortic pressure monitoring should be a part of the care of all pregnant women."

APPENDIX – CBP AND CHRONIC KIDNEY DISEASE

Extract from ATCOR Medical Report dated August 2021 – "The Role of Central Aortic Pressure Monitoring in the Management of Patients with Chronic Kidney Disease":

"Chronic kidney disease (CKD) is common and effects approximately 15% of adults in the USA (37 million people). Kidney disease is the ninth leading cause of death. CKD increases the risk for cardiac disease, stroke, and death, and leads to multiple significant additional diseases.

Hypertension and diabetes are the leading causes of CKD in adults and also represent the most treatable targets to prevent CKD and to reduce CKD progression. Hypertension is responsible for continued morbidity, mortality and high socioeconomic costs despite the widespread availability and use of cuff brachial artery measurements for diagnosis and monitoring.

Central aortic systolic pressure is highly correlated to brachial systolic pressures; however, central systolic pressures cannot be reliably inferred from brachial pressures.

Elevated central aortic pressure is predictive of end-organ damage including impaired renal function. Brachial and central aortic pressures provide complimentary information for risk prediction and management decisions.

The risk of cardiovascular events is associated with elevated central pressures and these risks have been shown in multiple studies to be superior, and in others, at least as high than that associated with brachial pressures. A recent meta-analysis, which incorporated multiple baseline factors including brachial systolic pressure, demonstrated that central systolic pressure is independently predictive of cardiovascular events and therefore provides additional risk information.

Threshold values for the diagnosis of elevated central arterial pressures have been defined and have been referenced to the threshold values for the diagnosis of hypertension based on brachial pressures and for target goals of treatment.

Prescription of anti-hypertension medications has the potential of significant benefit but as with all medications, may be associated with adverse consequences (hypotension and drug specific adverse effects) and should always be judicious and carefully considered, particularly in patients with CKD. Assessment of central pressures provides relevant information that informs prescription medication needs.

Measurements of central arterial pressures can be incorporated into the current approaches to hypertension management as the dual arterial pressure SphygmoCor XCEL device, the only FDA cleared medical device for non-invasive central arterial pressure waveform analysis for all adults, can provide both brachial and central aortic pressures in the same clinic setting.

Based on current technology, the availability of a non-invasive dual arterial pressure measurement system, the compelling clinical rationale and the extensive clinical published research, incorporation of central aortic pressure monitoring should be a part of the care of all patients with chronic kidney disease."

APPENDIX – CBP AND DIABETES

Extract from ATCOR Medical Report dated September 2021 - "The Role of Central Pressure Monitoring in the Management of Patients with Diabetes Mellitus & Elevated Blood Pressure":

"Diabetes mellitus is a common chronic disease that effects approximately 10.5% of the population in the USA (2018). In 2016, a total of 7.8 million hospital discharges were reported with diabetes as any listed diagnosis among US adults aged 18 years or older, with 1.7 million of the discharges including major cardiovascular diseases (75.3 per 1,000 adults with diabetes).

According to the 2020 National Diabetes Statistics Report, 68.4% of diabetics had a systolic blood pressure of 140 mmHg or higher, or diastolic blood pressure of 90 mmHg or higher, or were on prescription medication for their high blood pressure. Diabetes with associated hypertension is responsible for continued morbidity, mortality and high socioeconomic costs despite the widespread availability and use of cuff brachial artery measurements for diagnosis and monitoring.

Central aortic systolic pressure is highly correlated to brachial systolic pressures; however, central systolic pressures cannot be reliably inferred from brachial pressures. Elevated central aortic pressure is predictive of end-organ damage (heart, brain, kidneys). Brachial and central aortic pressures provide complimentary information for risk prediction and management decisions. The risk of cardiovascular events is associated with elevated central pressures and these risks have been shown in multiple studies to be superior, and in others, at least as high than that associated with brachial pressures.

Threshold values for the diagnosis of elevated central arterial pressures have been defined and have been referenced to the threshold values for the diagnosis of hypertension based on brachial pressures and for target goals of treatment.

Prescription of anti-hypertension medications has the potential of significant benefit but as with all medications, may be associated with adverse consequences (hypotension and drug specific adverse effects) and should always be judicious and carefully considered, particularly in patients with diabetes. Assessment of central pressures provides relevant information that informs prescription medication needs in diabetic patients.

Measurements of central arterial pressures can be incorporated into the current approaches to hypertension management as the dual arterial pressure SphygmoCor XCEL device, the only FDA cleared medical device for non-invasive central arterial pressure waveform analysis for all adults, can provide both brachial and central aortic pressures in the same clinic setting.

Independent data have confirmed the reliability of non-invasively obtained central aortic pressures utilizing SphygmoCor technology in numerous patient populations including patients with diabetes.

Based on current technology, the availability of a non-invasive dual arterial pressure measurement system, the compelling clinical rationale and the extensive clinical published research, incorporation of central aortic pressure monitoring, which is complementary to continued reliance on brachial pressure monitoring should be a part of the care of all patients with diabetes and associated hypertension."

APPENDIX – CBP AND COGNITIVE DECLINE

Extract from ATCOR Medical Report dated April 2021 - "Managing Cerebrovascular Disease and Cognitive Decline with Central Blood Pressure Measurement".

Elevated central pressures have been associated with an increased risk of vascular events and cognitive impairment. Monitoring of central pressures can provide information that helps treatment decisions related to cerebrovascular disease and cognitive impairment.

Including a dual blood pressure monitoring system (measuring both central and brachial blood pressure) as part of patient care is anticipated to improve understanding of vascular physiology, add value in the determination of risk for cerebrovascular disease and cognitive impairment, and provide additional guidance for treatment decisions with the objective of improving long-term brain health.

Hypertension is perhaps the most prominent clinical risk factor for stroke. Multi-infarct dementia (or vascular dementia) is a result of repeated, often subclinical, strokes (disruption of blood flow to an area of the brain leading to tissue destruction). In addition to direct damage to the brain due to transmission of high arterial pressures, hypertension can lead to damage through decreased blood flow to the brain from atherosclerosis and low cardiac output resulting from heart failure.

Multiple publications have highlighted the association between hypertension and either dementia or cognitive impairment.[123] The association is mainly noted when hypertension occurs early in adult life relatively to the elderly population. As well, data exist demonstrating that lowering blood pressure in middle-age adults with hypertension can reduce the subsequent development of dementia or cognitive impairment.[45]

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[2] Kophler S, Baars MA, Spauwen P, Schlevink S, Verhey FR, Van Boxtel MJ. Temporal evolution of cognitive changes in incident hypertension: Prospective cohort study across adult age span. Hypertension. 2014;63:245–51.

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[4] Launer LJ, Hughes T, Yu B, Masaki K, Petrovitch H, Ross GW, et al. Lowering midlife levels of systolic blood pressure as a public health strategy to reduce late-life dementia: Perspective from the Honolulu Heart Program/Honolulu Asia Aging study. Hypertension. 2010;55:1352–9.

[5] Gorelik PB. Blood pressure and the prevention of cognitive impairment. JAMA Neurol. 2014;71:1211–3

Stock Details					
Recommendation	BUY	52 Week High	$0.12	Shares on Issue	1,099.0m
Valuation	$0.16	52 Week Low	$0.05	Market Cap	$56m
Share price	$0.051	Avg Mthly Value	$2.6m	Enterprise Value	$51m
Upside/downside	211%	Financial Year End	30-June	Free Float	100%

Profit & Loss ($m)	FY21A	FY22E	FY23E	FY24E	FY25E
Operating Revenue	**5.0**	**5.1**	**16.4**	**48.1**	**98.3**
Other Revenue	0.5	0.4	0.0	0.0	0.0
Total Revenue	5.5	5.5	16.4	48.1	98.3
Operating Costs	-10.9	-12.0	-16.9	-42.2	-80.6
EBITDA (Inc.Assoc)	**-5.3**	**-6.5**	**-0.5**	**5.9**	**17.7**
D&A	-0.2	-0.4	-1.2	-3.6	-7.3
EBIT	-5.5	-6.9	-1.7	2.3	10.4
Net Interest Expense	0.0	0.0	0.0	0.0	0.1
Pre-Tax Profit	-5.5	-6.9	-1.7	2.3	10.4
Tax Expense	0.0	0.0	0.0	0.0	-3.1
Minority Interests	0.0	0.0	0.0	0.0	0.0
NPAT Normalised	**-5.5**	**-6.9**	**-1.7**	**2.3**	**7.3**
Pref Dividends	0.0	0.0	0.0	0.0	0.0
One-Offs after tax	0.0	-2.0	0.0	0.0	0.0
NPAT Reported	**-5.5**	**-8.9**	**-1.7**	**2.3**	**7.3**

Balance Sheet ($m)	FY21A	FY22E	FY23E	FY24E	FY25E
Cash	3.7	1.5	0.9	5.0	16.0
Inventory	0.4	0.4	1.4	4.0	8.1
Receivables	1.2	1.0	1.4	4.0	8.1
Other	4.0	4.0	4.0	4.0	4.0
Current Assets	9.3	6.9	7.6	16.9	36.1
PPE	0.4	0.1	-0.6	-2.7	-7.1
Intangible Assets	0.3	0.3	0.3	0.3	0.3
Other	1.3	1.3	1.3	1.3	1.3
Non-Current Assets	2.0	1.7	1.0	-1.1	-5.5
Total Assets	11.3	8.7	8.7	15.8	30.6
Payables	0.8	0.8	2.5	7.2	14.8
Interest Bearing Liabs	1.3	0.0	0.0	0.0	0.0
Other	1.1	1.1	1.1	1.1	1.1
Current Liabilities	3.2	1.9	3.6	8.4	15.9
Interest Bearing Liabs	0.1	0.1	0.1	0.1	0.1
Other	0.0	0.0	0.0	0.0	0.0
Non-Current Liabilities	0.1	0.1	0.1	0.1	0.1
Total Liabilities	3.4	2.0	3.7	8.5	16.0
Contributed Equity	59.3	67.0	67.0	67.0	67.0
Reserves + Retained	-51.4	-60.3	-62.0	-59.7	-52.4
Minorities & Convertibles	0.0	0.0	0.0	0.0	0.0
Total Equity	7.9	6.7	4.9	7.3	14.6

Cashflow Statement ($m)	FY21A	FY22E	FY23E	FY24E	FY25E
Gross Operating Cash Flow	-4.5	-6.3	-0.1	5.5	17.0
Net Interest	0.0	0.0	0.0	0.0	0.1
Tax Paid	0.0	0.0	0.0	0.0	-3.1
Other	0.5	0.0	0.0	0.0	0.0
Net Operating Cash Flows	-4.0	-6.3	-0.1	5.5	13.9
Payments for PPE	-0.1	-0.2	-0.5	-1.4	-2.9
Payments for Acquisitions	0.0	0.0	0.0	0.0	0.0
Other	0.4	-2.0	0.0	0.0	0.0
Net Investing Cash Flows	0.4	-2.2	-0.5	-1.4	-2.9
Net Share Issues	6.4	7.7	0.0	0.0	0.0
Net Borrowings	-0.6	-1.3	0.0	0.0	0.0
Dividends Paid	0.0	0.0	0.0	0.0	0.0
Other	-0.5	0.0	0.0	0.0	0.0
Net Financing Cash Flows	5.3	6.3	0.0	0.0	0.0
Change in Cash Held	1.7	-2.1	-0.6	4.0	11.0
Cash at Beginning of Period	2.1	3.7	1.5	0.9	5.0
Adjustments	-0.1	0.0	0.0	0.0	0.0
Cash at End of Period	3.7	1.5	0.9	5.0	16.0

Ratio Analysis	FY21A	FY22E	FY23E	FY24E	FY25E
Revenue Growth	16%	0%	197%	193%	104%
EBITDA Growth	-55%	-22%	92%	1278%	199%
EBIT Growth	-51%	-25%	75%	235%	344%
NPAT Growth	-61%	-25%	75%	235%	213%
EBITDA Margin	-106%	-128%	-3%	12%	18%
EBIT Margin	-110%	-135%	-10%	5%	11%
Tax Rate	0%	0%	0%	0%	30%
NPAT Margin	-110%	-136%	-11%	5%	7%
Net Debt	-2.2	-1.4	-0.8	-4.9	-15.9
Total Debt	1.4	0.1	0.1	0.1	0.1
Current Debt / Total Debt	92.5%	0.0%	0.0%	0.0%	0.0%
Net Debt / Equity	0.0%	0.0%	0.0%	0.0%	0.0%
Net Debt / Net Debt + Equity	0.0%	0.0%	0.0%	0.0%	0.0%
EBIT Interest Cover	-461.7	-142.4	-132.8	Large	Large
Total Debt / EBITDA	0.0	0.0	-0.4	0.0	0.0
EBITDA Cash Conversion	85%	97%	20%	93%	96%
NPAT Cash Conversion	75%	97%	22%	93%	95%
Free Cashflow (FCF)	-4.1	-6.5	-0.6	4.0	11.0
FCF / Operating Cashflow	102%	102%	529%	74%	79%
Working Capital / Sales	27.7%	14.5%	2.6%	0.9%	1.0%
Capex / Sales	1%	3%	3%	3%	3%
Depreciation / Sales	3.6%	7.4%	7.4%	7.4%	7.4%
Capex / Depreciation	39%	40%	40%	40%	40%
DUPONT ANALYSIS					
EBIT Margin	-109.8%	-135.0%	-10.5%	4.8%	10.6%
x Interest Burden	1.0	1.0	1.0	1.0	1.0
x Tax Burden	1.0	1.0	1.0	1.0	0.7
x Asset Turnover	0.5	0.5	1.9	3.9	4.2
= ROA	-50.3%	-69.2%	-20.0%	19.1%	31.5%
x Leverage	1.6	1.4	1.5	2.0	2.1
= ROE	-80.0%	-94.6%	-29.9%	38.2%	66.8%
	0.0%	0.0%	0.0%	0.0%	0.0%
ROIC	-65.5%	-87.8%	-25.8%	50.2%	1314.4%
Shares On Issue (million)	926.0	1,099.0	1,099.0	1,099.0	1,099.0
EFPOWA (million)	872.8	1,055.8	1,099.0	1,099.0	1,099.0

Share Price: $0.05	FY21A	FY22E	FY23E	FY24E	FY25E
Normalised EPS (¢)	-0.6	-0.7	-0.2	0.2	0.7
EPS Growth	-34.0%	-3.4%	75.9%	234.5%	212.8%
PE	-8.1	-7.8	-32.3	24.0	7.7
FCFPS (¢)	-0.5	-0.6	-0.1	0.4	1.0
P/FCF	-11.0	-8.3	-93.1	13.9	5.1
DPS (¢)	0.0	0.0	0.0	0.0	0.0
Dividend Yield	0.0%	0.0%	0.0%	0.0%	0.0%
Payout Ratio	0.0%	0.0%	0.0%	0.0%	0.0%
Franking	0%	0%	0%	0%	0%
BVPS ($)	$0.01	$0.01	$0.00	$0.01	$0.01
P/BV	5.97	8.40	11.34	7.70	3.85
NTAPS ($)	$0.01	$0.01	$0.00	$0.01	$0.01
P/NTA	6.23	8.83	12.16	8.07	3.94
EV/EBITDA	-9.5	-7.8	-101.1	8.6	2.9
EV/EBIT	-9.2	-7.4	-29.4	21.7	4.9
EV/EBITDA (at Target $0.16)	-31.8	-26.1	-336.9	28.6	9.6
EV/EBIT (at Target $0.16)	-30.8	-24.7	-98.1	72.4	16.3

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