

nanosonics

Infection Prevention. For Life.



SOCIETY

LEADERSHIP

EXPANSION

2019
ANNUAL
REPORT

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Overview

Nanosonics (ASX: NAN) has developed a unique automated disinfection technology, which is the first major innovation in high level disinfection for ultrasound probes in more than 20 years.

This proprietary technology is being successfully introduced around the world, transforming the way infection prevention practices are understood and applied within the healthcare environment and is becoming the new standard of care as it safely and effectively addresses the issues involved with traditional ultrasound probe disinfection practices.

The strategic growth agenda for Nanosonics includes expanding the adoption of trophon® in those markets where trophon is already represented, expanding global presence and expanding the product portfolio through significant investment in research and development to bring new infection prevention products to market.



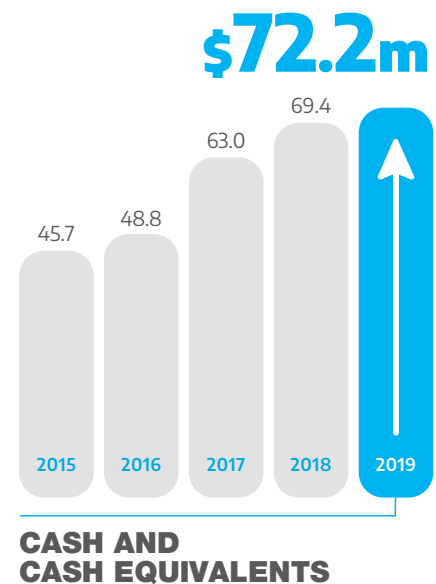
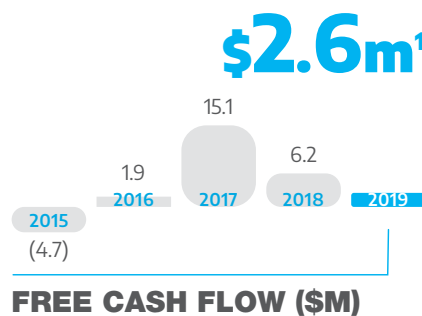
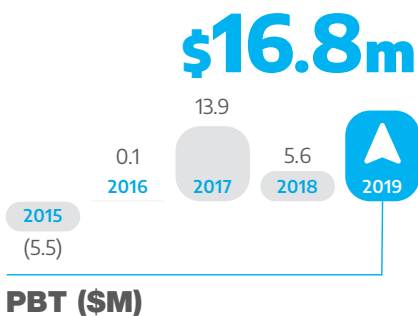
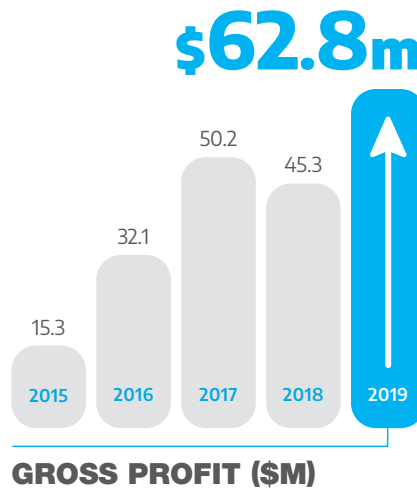
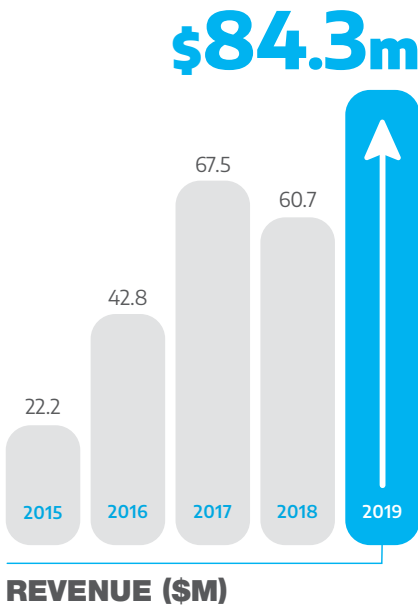
Our Mission

To improve the safety of patients, clinics, their staff and the environment by transforming the way infection prevention practices are understood and conducted, and introducing innovative technologies that deliver improved standards of care.



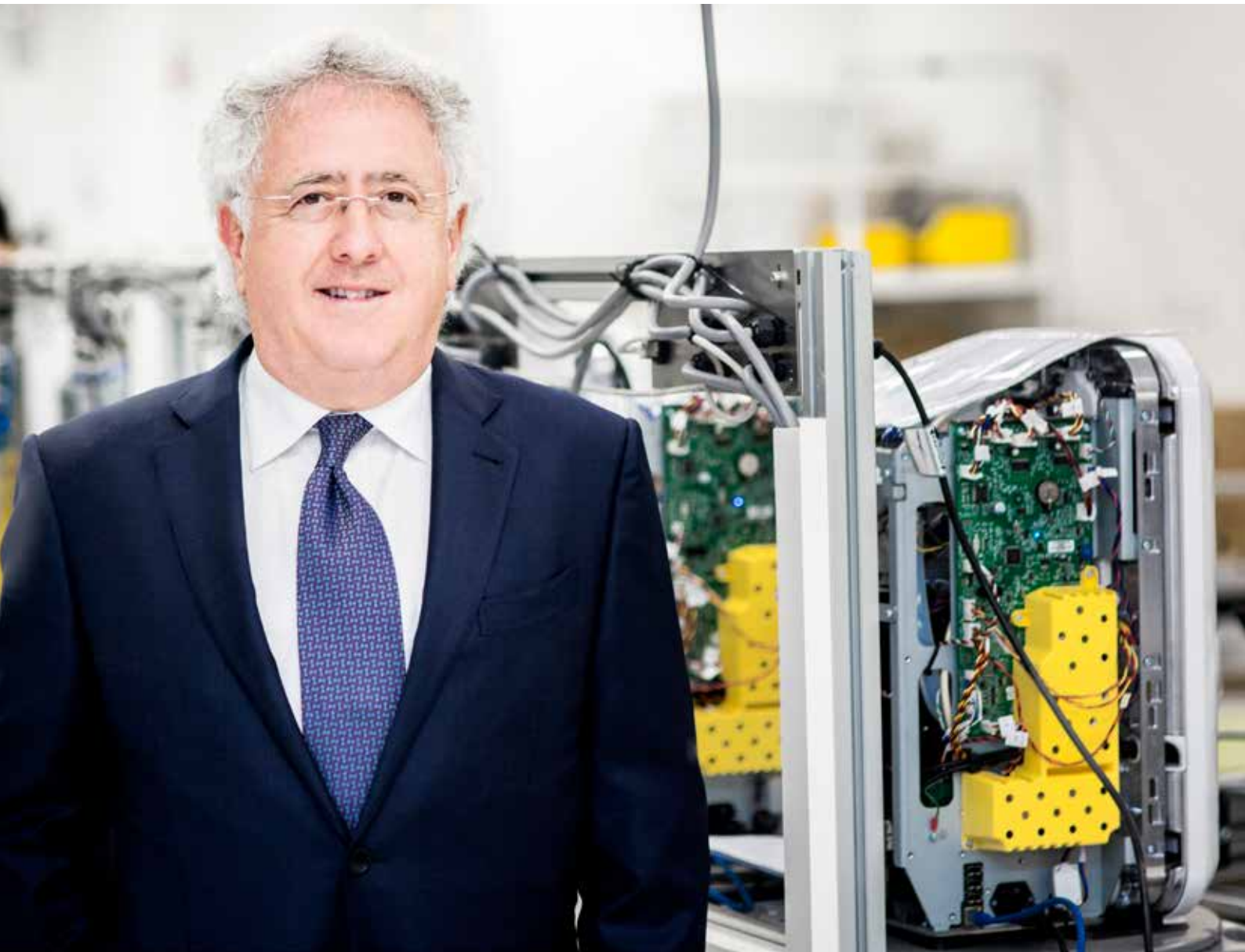
Continued strong growth and strategic expansion

\$'000	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Revenue	84,324	60,698	67,507	42,796	22,214	21,492	14,899	12,301	2,247	763
Gross profit	62,816	45,291	50,155	32,166	15,313	13,921	8,471	7,502	1,266	479
Research and development expenses	(11,375)	(9,882)	(9,486)	(7,297)	(4,902)	(4,103)	(3,167)	(3,135)	(3,627)	(2,369)
EBITDA	17,642	5,861	14,110	950	(4,732)	(1,845)	(5,366)	(4,982)	(11,963)	(8,187)
EBIT	15,502	4,362	12,866	(359)	(5,795)	(2,820)	(6,410)	(5,896)	(12,973)	(8,958)
Operating profit/(loss) before tax	16,830	5,583	13,852	136	(5,465)	(2,636)	(5,735)	(5,310)	(11,921)	(8,173)
Net income tax (expense)/benefit	(3,228)	168	12,306	(14)	5	31	(33)	631	707	—
Operating profit/(loss) after tax	13,602	5,751	26,158	122	(5,460)	(2,605)	(5,768)	(4,679)	(11,214)	(8,173)
Cash and cash equivalents	72,180	69,433	62,989	48,841	45,724	21,233	24,064	29,310	12,356	21,144



1. Cash flow for the year was impacted by an increase in trade and other receivables of \$11,087,000 due to aligning payment terms with a key distributor with our standard payment terms and the timing of sales and payments by that distributor, and an increase in inventory of \$5,082,000 associated with the launch of trophon2.





It is my pleasure to report on Nanosonics' robust progress across its business, technical and corporate objectives. Today your company is truly global in both its capabilities and horizons with over 286 team members and activities across Asia Pacific, the Americas, Europe and the Middle East.

The past year has seen significant and successful investment in our Research and Development (R&D) programs, management, manufacturing and an ever growing engagement with customers and trade partners across the globe. The launch of our next generation trophon[®]2 and growth of our installed base reflects the strong focus on our core business, whilst our world leading R&D team develop new solutions for our future growth and expansion.

During the year, sales increased strongly by 39% to \$84.3 million. Whilst the investment in growth continues, Nanosonics' operating profit before tax of \$16.8 million has meant that the Company's platform from which future investments in growth can be made, has also continued to strengthen. Importantly, these strong results, as well as the positive sentiment regarding the Company's future, are reflected in the significant shareholder value that has been generated throughout the year. Our capital management is regularly reviewed and considering the significant global healthcare challenges associated with infection prevention and the resulting opportunities for the development and introduction of innovative solutions, investment in the long-term strategic growth agenda of the Company is considered the best use of the Company's free cash flow and capital reserves at this time.

It is pleasing to see that trophon2, the next generation trophon technology, has been launched successfully in key global markets for Nanosonics and feedback from our customers has been very positive.

Closer to home, I was also proud to see trophon2 win a prestigious Good Design Award Gold Accolade in July 2019 in recognition of its outstanding design and innovation.

For the second consecutive year, Nanosonics also won an award at The Premier's NSW Export Awards, taking out the Health and Biotechnology category award in October 2018. In August 2019, Nanosonics' innovation program was recognised as being amongst the most innovative in Australia and New Zealand, ranking seventh in the Australian Financial Review Boss, Most Innovative Companies Health Industry List.

The Company continues to make a positive impact on healthcare delivery for the global communities in which it operates. This combines not only the impact of the trophon ecosystem but also our support for new and improved guidelines and standards. trophon is a global solution for reducing cross-contamination between patients and reducing the spread of Healthcare Associated Infections (HAIs).

HAIs remain a widespread and largely preventable occurrence that have an enormous impact, not only on patients and their families, but on our hospitals and care facilities resources and the communities in which they operate.

HAIs are the most frequently occurring adverse event in healthcare worldwide with a prevalence of 7.6% amongst hospitalised patients in high-income countries¹. In Australia, a recent study has shown hospital HAI prevalence rates range from 5.7% to 17.0%, with a median of 9.2%².

Nanosonics' trophon technology has a presence of more than 20,000 globally installed devices, resulting in approximately 70,000 cycles every day – with each cycle contributing to mitigating against the spread of potentially fatal HAIs.

Nanosonics recognises the importance of its commitment to its Environmental, Social and Governance (ESG) principles and this is reflected in the depth of the disclosures in this year's ESG report.

The ESG-related activities that Nanosonics reports against demonstrate that Nanosonics is a Company that drives great shareholder value by doing good in the communities in which it operates, and for all the stakeholders it represents.

We recognise and appreciate the “social licence” that supports our growth as an emerging global leader in infection control.

Our processes are environmentally conscious and our products represent significant environmental benefits over any available alternatives. We have several active programs of giving to a variety of causes and our staff are supported to participate in volunteer programs in the Australian community. Finally, we respect the need for governance and accountability and these are built into the very fabric of our activities.

Research and development is a core focus for Nanosonics and its current innovation program and investment is without precedent in the Company's history.

We invested \$11.4 million during the year on innovative research and development, enhancing our core technologies, as well as progressing the development of new platforms which potentially address large scale new opportunities. We continue to enhance our trophon ecosystem of products and services in new and innovative ways, including through intelligent data management solutions designed to help our customers improve the way they meet their own increasingly demanding compliance obligations.

The Nanosonics team continues to grow, and its expertise strengthen. We are now a team of 286 located in Australia, the United States, Canada, Europe, and Japan, representing an increase of 61 people during the year.

Whilst the Company continues to grow rapidly, the culture remains strong, healthy and entrepreneurial.

I am pleased to welcome four new executives to the management team who will guide the Company on its next phase of growth, including Regional Presidents in Asia Pacific and Europe/Middle East to drive further growth in those regions.

I would like to recognise the outstanding work and commitment of our Board who have applied themselves to every dimension of your company's strategic growth. FY19 also saw the addition of a new Director, and I was very pleased to announce recently the appointment of Mr Geoff Wilson to the Nanosonics Board. Geoff brings with him considerable finance, audit and risk management experience, as well as current and deep experience in important Asia Pacific markets where Nanosonics operates.

On behalf of the Board, management and shareholders, I also thank our longstanding Director and contributor to the Board, Mr Richard England, who will step down effective 31 August 2019. We thank Richard for his significant contribution to the Nanosonics story, and I wish to acknowledge the valuable guidance and insight he has provided in his capacity as Chair of the Audit & Risk Committee for a number of years, during which the Company experienced both high growth and radical change.

The Company recognises the importance and value of diversity on the Board, and has appointed an external recruitment agency to undertake a process with the aim of appointing an additional Director with relevant industry and technical experience during FY20.

The fundamentals for adoption have continued to strengthen with a number of new studies and guidelines supporting the need for high level disinfection of ultrasound probes used in both critical and semi-critical procedures. We expect this to underpin future growth in the trophon category, and that this will be supported by the introduction of new products to build the Nanosonics portfolio of segment leading technologies in the infection control space.

Finally, I would like to thank our outstanding global team led by our CEO, Michael Kavanagh, who continue to deliver for our shareholders.

Your Company is at an important stage of its strategic growth agenda where it is continuing to invest in global expansion and the development of innovative solutions for a world market demanding innovation to solve many intractable problems. After another successful year delivering on our promise of 'Infection Prevention. For Life', I look forward to working with the Board, management and wider team on continuing to execute our strategic agenda to deliver long-term growth in shareholder value and an ongoing contribution to advancing healthcare delivery.

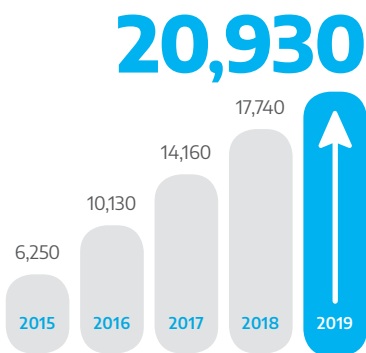


Mr Maurie Stang
Chairman

27 August 2019

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1. Currie K, *et al.* Understanding the patient experience of health care-associated infection: A qualitative systematic review. *Am J Infect Control.* 2018;46(8):936-42
2. Russo PL, *et al.* The prevalence of healthcare associated infections among adult inpatients at nineteen large Australian acute-care public hospitals: a point prevalence survey. *Antimicrob Resist Infect Control.* 2019;(8)



GLOBAL INSTALLED BASE

The trophon installed base continued to grow strongly throughout FY19. Globally the installed base grew 18% from 17,740 units at the end of FY18 to 20,930 units by 30 June 2019.

I am very pleased to report that throughout the 2019 financial year, Nanosonics has continued to go from strength to strength delivering excellent growth in our core trophon business while making significant investments in our long-term strategy of establishing the organisation as a globally recognised leader in infection prevention.

There were significant achievements across all aspects of our business, including strong growth in the trophon installed base, up 18% to 20,930 units. This means that more than 70,000 patients every day or approximately 18 million patients every year are protected from the risk of cross-contamination because their probe has been decontaminated using trophon.

During the year, the second generation trophon2 was also successfully launched and was the recipient of the Gold Award at the Australian Good Design Awards.

Geographically, Nanosonics expanded into a number of new markets, including the Nordics, Spain, Portugal, Switzerland and Israel. Market development efforts in Japan continued with the establishment of a Nanosonics entity in Japan, the publication of the first pivotal study in Japan demonstrating probe contamination, and the recent signing of an agreement with GE Healthcare Japan, as well as the recent Japanese regulatory approval of trophon2.

Importantly, large investments in our product expansion strategy were made with key milestones met throughout the year towards the targeted introduction of the next significant new product for the end of FY20, subject to regulatory approval.

Investments in our people, organisational design and capability were also an important feature of FY19. Four new executives were appointed to the Executive team, including Regional Presidents for Asia Pacific and recently Europe, as well as strengthening our marketing and operational capabilities with the addition of a new Chief Marketing Officer, Chief Strategy Officer and Chief Operating Officer. Our total number of employees grew to 286. This investment in our organisational capability and capacity underpins the long-term strategic growth agenda for the organisation.

Total sales for the year were \$84.3 million, up 39% on prior corresponding period. These sales reflect capital revenue of \$32.8 million which was up 28% on prior corresponding period and revenue associated with consumables and service of \$51.5 million which was up 47% on prior corresponding period, reflecting the continuing strong growth in the installed base which supports the important annuity revenue profile of the business.

Significant investments in our growth strategy were made throughout the year resulting in a 15.5% growth in total operating expenses to \$49.2 million, including \$11.4 million in Research and Development (R&D).

Operating profit before tax grew by over 200% on the prior year to \$16.8 million and the cash balance as at June 30 2019 was \$72.2 million. This underpins planned ongoing investment in the growth of the business associated with product and geographical expansion, together with infrastructure investment, to further expand our capability and capacity.

Nanosonics is working towards becoming a globally recognised leader in the research, development, manufacture and commercialisation of infection prevention solutions. Our strategic growth agenda is focused on five core areas, namely:

1. Customer Experience

2. Product Innovation

3. Operational Excellence

4. People Engagement

5. Value Creation

The following provides an outline of some of the key highlights during FY19 relating to each of these core areas.

1. Customer Experience

Our Customer Experience objective is focused on establishing our offerings as new standards of care globally and providing customers with a convenient and consistent experience with our products and brand.

Strong growth in the trophon installed base

During FY19, the trophon installed base grew 18% to 20,930 which is a growth of over 10,000 units in the last three years alone. This growth is expected to continue with strengthening international fundamentals for adoption, growing awareness and an acceptance of the risk of cross-contamination with ultrasound probes. In North America alone, the trophon installed base has grown to 18,570 and can be found in all luminary healthcare institutions. The ongoing growth in the installed base is supported through numerous educational initiatives supported or run by Nanosonics.

Market expansion

During the year Nanosonics expanded its international distribution agreement with GE Healthcare to cover the Nordics, Spain and Portugal. New distribution agreements were also entered into in Switzerland, Israel and Kuwait.

Market development efforts in Japan continued with the establishment of a Nanosonics entity in Japan, the publication of the first pivotal study in Japan demonstrating probe contamination, and the recent signing of an agreement with GE Healthcare Japan, as well as the recent Japanese regulatory approval of trophon2.

The appointment of new Regional Presidents for Europe and Asia Pacific strengthens the ongoing expansion aspirations in each of these regions.

New French guidelines

In Quarter 4 of FY19, the French Ministry of Health released anticipated guidelines supporting the requirement of high level disinfection.

More than 70,000 patients every day or approximately **18 million patients** every year are protected from the risk of cross-contamination.

2. Product Innovation

Our Product Innovation objective relates to being an innovator in the field of infection prevention through the identification of unmet customer needs, resulting in the development and commercialisation of customer centric solutions that can become new standards of care.

Launch of trophon2

Our new trophon2 technology was successfully introduced into manufacturing and launched in North America, Europe and Australia. This new innovation brings a range of new market leading benefits to customers across safety, efficacy, traceability and simplicity.

Investment in R&D

Product expansion is a core element of our strategic growth agenda and during FY19 our investment in R&D grew to \$11.4 million. The Research, Design and Development team grew across a range of engineering and science disciplines. Nanosonics aims to bring to market an expanded product portfolio internationally and intends to continue its investment in R&D to build a pipeline of new potential product opportunities. It is anticipated that the first new non-trophon related product will be brought to market by the end of FY20, subject to regulatory approval.

Strengthening our IP position

Nanosonics recognises the importance of its IP portfolio in maintaining its sustainable competitive advantage. Our patent portfolio continued to make strong progress in FY19 with 12 applications successfully passing examination to proceed to allowance or grant. Patents were granted in the US, Europe (United Kingdom, Germany and France), Canada and Australia, among others. The portfolio has continued to expand with four PCT (international) applications and four provisional applications for new inventions being filed. Importantly, Nanosonics also enjoys IP protection over subject matter related to its ongoing consumables revenue out to 2029, and has an active program of IP development and filings which will continue to ensure our technology is protected into the future.



3. Operational Excellence

Our Operational Excellence objectives focus on structuring, resourcing and operating our organisation in a way that is disciplined but agile through scalable, compliant and performance-focused processes.



Investments in our global operational infrastructure

During the year, the organisation continued to invest in its operational capacity and capability through the structured implementation of a new IT infrastructure, an upgrade of our ERP system to manage our geographical expansion, as well as growth in our regional sales and service organisation. New disciplines were also introduced into the organisation, including clinical trial design and management, expansion of our microbiology laboratories and capabilities, as well as Lean Manufacturing and New Product Introduction (NPI).

4. People Engagement

Our People Engagement objective focuses on attracting and retaining the best people, ensuring they are engaged and empowered to work towards the attainment of our mission and corporate objectives.

During FY19 we conducted our first employee engagement survey – 'Our Voice' – which measured two important employee engagement and cultural assessment parameters, namely:

- **Passion and Engagement**
measuring organisational commitment/ job satisfaction and intention to stay
- **Progress**
measuring understanding of, and alignment with, organisation objectives as well as employee attitudes towards change, innovation and job satisfaction

Result

Overall the organisation scored highly for both **Passion and Engagement** and **Progress**, resulting in scores greater than **10% higher than industry average**.

The Nanosonics team grew with the addition of 61 new employees. Nanosonics benefits from a diverse workforce that brings a range of experience, skill and capability to the organisation.

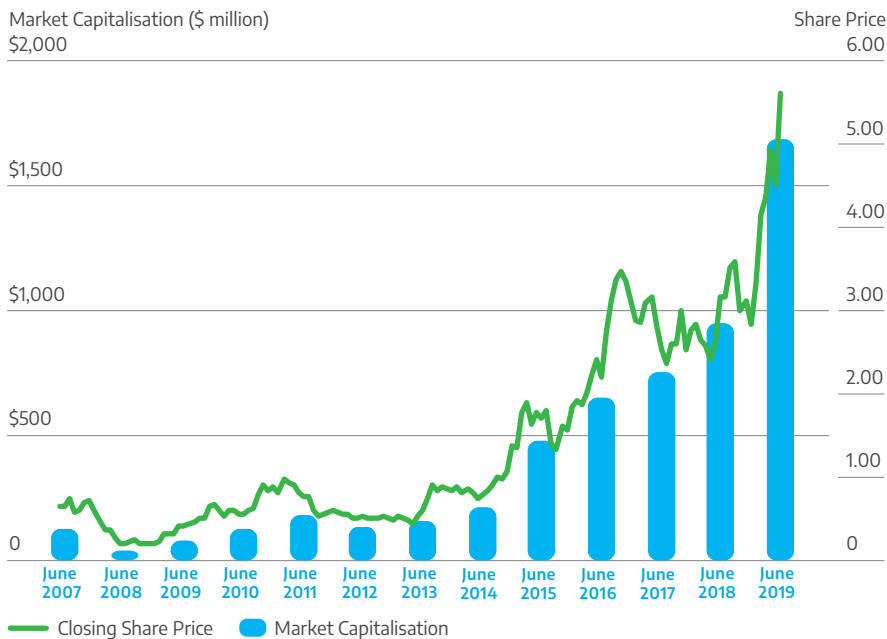
30 nationalities are represented across the organisation and over **30% of senior management roles are held by women**.

Nanosonics also runs intern programs across many key universities and with many partners. These programs run across a number of functional areas and disciplines, in particular engineering and science.

Importantly, four new executives joined the Nanosonics leadership team, including Regional Presidents for both Asia Pacific and Europe/Middle East, a Chief Marketing Officer and a Chief Operating Officer. Each of the new executives is continuing to reshape their respective areas of responsibilities to deliver on our short-term objectives as well as setting the foundations for the next phase of our growth.

5. Value Creation

SHAREHOLDER RETURN



Our Value Creation objective is focused on creating sustainable shareholder value through the delivery of long-term sustainable growth and returns. Positive returns are generated through the successful implementation of our growth strategies as they pertain to growing the Installed Base which delivers an ongoing stream of annuity revenue, geographical expansion and investment in product expansion. Significant achievements across all these growth drivers were delivered in FY19.

Over the last five years shareholder value has grown at a Cumulative Annual Growth Rate of 48%. In the last 12 months Nanosonics was one of the top performers in the ASX 200 with a market capitalisation growth of over 70%.

FY20 outlook

In FY20 the company is focused on three core areas:

1. Establishing trophon as standard of care

Through ongoing customer education, establishing the trophon technology as the standard of care for the high level disinfection of all semi-critical ultrasound probes in those markets where trophon is currently represented.

2. Geographic expansion

Expanding and investing into new markets and driving awareness about the importance of high level disinfection of ultrasound probes, strengthening the fundamentals for adoption through the support of the development of new guidelines.

3. Product expansion

Developing and commercialising new products focusing on unmet needs in infection prevention.

Specifically in FY20 our focus will be on:

- Continuing to grow the installed base in North America with expectations that FY20 adoption will be similar to FY19.
- Increasing our sales infrastructure across Europe to drive increasing growth in trophon adoption as fundamentals of adoption have strengthened in particular across the United Kingdom, Germany and France.
- Continued market education and development in Japan to establish local guidelines to strengthen local fundamentals for adoption.
- Driving upgrades/replacements of older trophon® EPR units to trophon2.
- Launching the first new product by the end of FY20 (subject to regulatory approval)
- Continued investment in R&D to support our ongoing product expansion aspirations.
- Continuing to build our people, infrastructure, capability and capacity to support our strategic growth agenda.

It is expected that our active ongoing investment in growth will result in FY20 operating expenses of approximately \$67 million, including approximately \$15 million, in R&D.

Importantly in July 2019, our distribution agreement with GE Healthcare in the USA changed to a Capital Reseller model. This change will result in a material increase in both sales and margin from consumables in North America, the full impact of which will come into effect from the second half FY20.

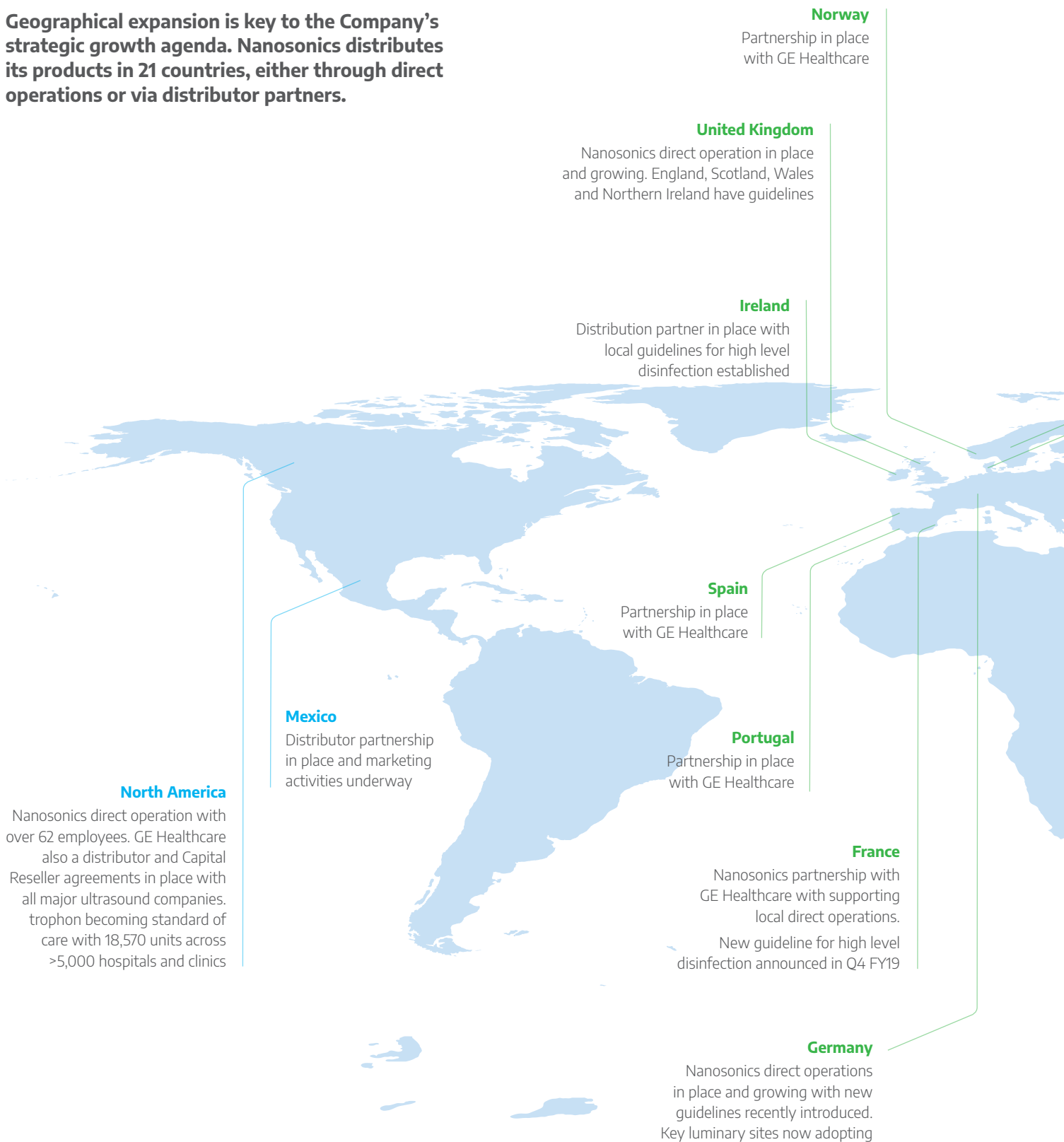
I would like to thank the Nanosonics team and our distribution partners for their considerable efforts throughout the year plus their belief in our mission to improve the safety of patients, clinics, their staff and the environment by transforming the way infection prevention practices are understood and conducted. Because of them over 70,000 patients each day or approximately 18 million patients every year are protected from the risk of cross-contamination because the ultrasound probe used on them was high level disinfected using trophon. Through their efforts this number increases daily.

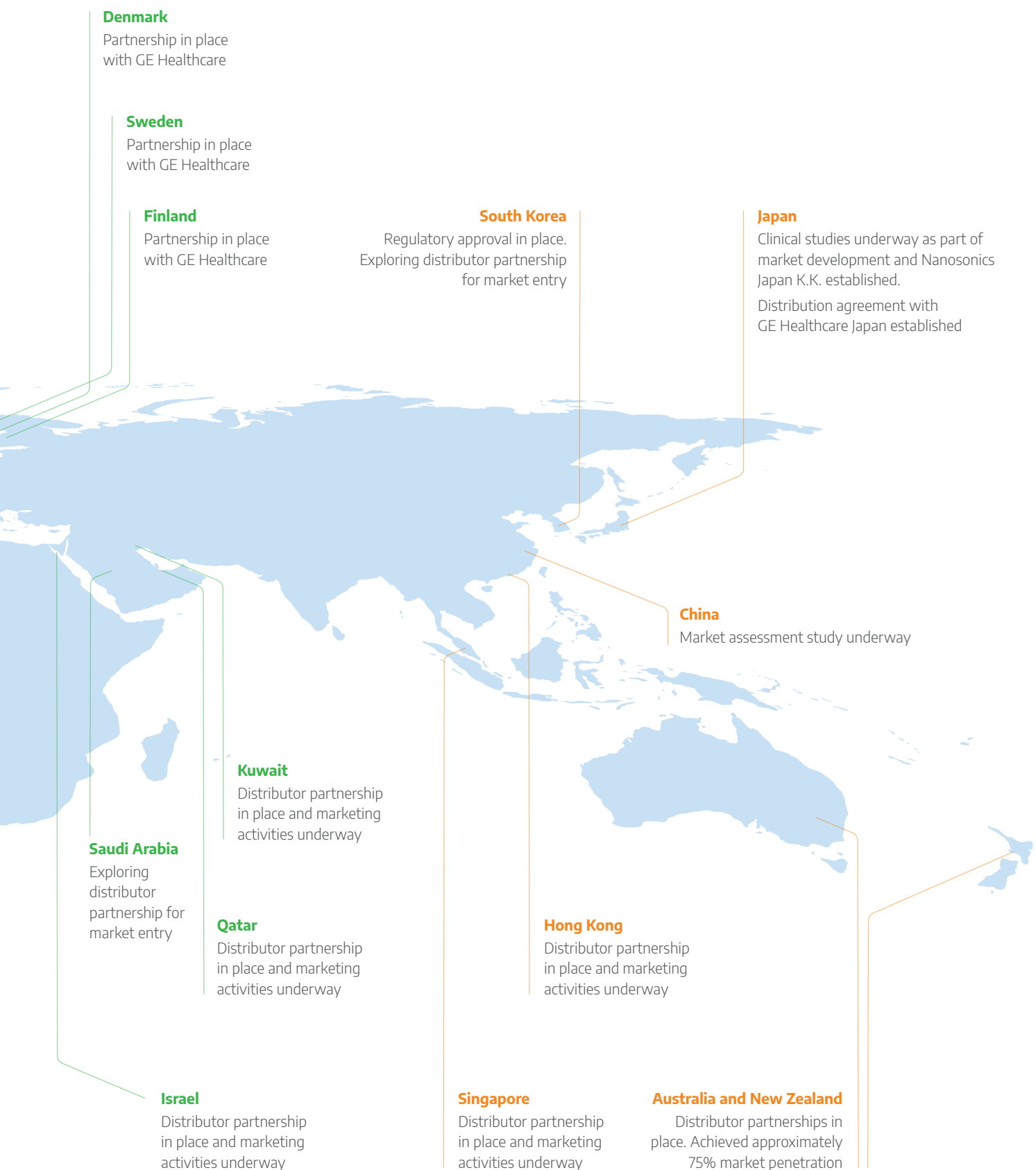
I would also like to thank our shareholders for their ongoing support and belief in the Nanosonics' vision of becoming a globally recognised leader in infection prevention.

Michael Kavanagh
CEO and President

Expanding global presence

Geographical expansion is key to the Company's strategic growth agenda. Nanosonics distributes its products in 21 countries, either through direct operations or via distributor partners.





North America

Following the successful trophon2 launch in Q1 FY19, our device continued its strong growth during FY19, growing from 15,620 units to 18,570 units. This represents 46% of the estimated market potential of 40,000 units¹.

The trophon device is now installed in over 5,000 hospitals and clinics, including the top 100 US hospitals.

In North America, every day more than 57,000 patients are protected from the risk of cross-contamination by trophon technology, a number that is increasing daily.

Fundamentals for ongoing adoption of trophon continue to strengthen

Regulations and guidelines requiring high level disinfection of semi-critical ultrasound probes have existed for some time in North America. However, as identified in an important National Survey conducted in 2018, there is a widespread lack of understanding and awareness of what procedures confer semi-critical status on an ultrasound probe in particular procedures where surface vs endocavitary probes are used. If a surface probe can come into contact with broken skin, mucous membranes, sterile tissue or the vascular system, then that probe is considered as semi-critical or critical. This means these surface probes require a minimum of high level disinfection between patients. Examples of common procedures that fall into this category include ultrasound-guided biopsies and wound scans.

A national survey on this topic was published in the American Journal of Infection Control during 2018.² The survey of infection preventionists across the US revealed significant variation in practice for surface ultrasound probe reprocessing. The majority of respondents were from hospital settings, with 96% reporting high level disinfection for endocavitary ultrasound probes, while only 59% were performing high level disinfection for biopsies, 39% for injections and 33% for central line placements. The study concluded there is an urgent need to review policies and ensure best practice for patient safety.

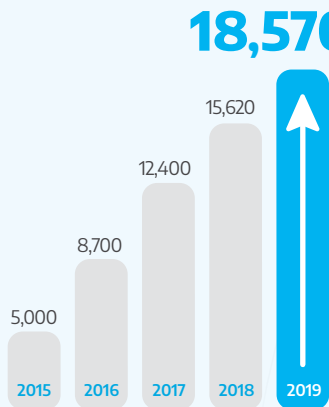
Driven by these survey results and observations in their own practice, a group of infection prevention experts identified a range of knowledge gaps in this emerging area.³ The group brought together clinical evidence and federal guidelines into a set of practical tools to help facilities review and standardise their ultrasound probe reprocessing practices.



Teamwork: Helping to spread the trophon message at APIC were: (Front row) Lia Moshkanbaryans, Lynn Mollenauer, Donna Fiorentino, Hope Hurd, Gina Cummings, Keith Korby and Mitch Hansen. (Back row) Jon Burdach, Tim Benkovic, Kevin Markham, Ken Shaw, Michael Kavanagh, and Chris Proctor.



TROPHON INSTALLED BASE



During FY19, trophon continued to be adopted as the new standard of care with the installed base increasing by 19% – growing from 15,620 units to 18,570 units. This represents 46% of the estimated market potential of 40,000 units.¹

Four tools were developed to help ultrasound users and infection prevention professionals address this need across all departments using ultrasound in their facilities. The Ultrasound Infection Prevention Toolkit was launched in 2018, and is available for download online. The tools are editable to help users meet their local and facility requirements in line with existing evidence-based guidelines and standards in the US.



Independent expert: Associate Professor Ruth Carrico was one of two experts who were on hand to explain the Ultrasound Infection Prevention Toolkit at APIC 2019.

Initiatives are now in place focusing on educating customers on the survey results and potential risks of cross-infection for patients if surface probes are not properly reprocessed.

Partnerships with ultrasound OEMs continue to grow successfully

Capital reseller agreements are now in place with all major ultrasound companies in North America, with sales through this channel growing at double digit rates.

In this model the ultrasound manufacturers are able to sell the trophon capital equipment. Once the unit is sold, Nanosonics is responsible for in-service (setup) of the unit, customer training and the ongoing provision of consumables and service. The majority of these companies now include trophon in their trade displays at major ultrasound meetings, demonstrating to customers the importance of probe decontamination and the trophon solution as the recommended standard of care.

New GE agreement starts FY20

A new three-year capital reseller agreement with GE Healthcare commenced on 1 July 2019, providing GE Healthcare with capital reseller rights as part of Nanosonics' global ultrasound OEM program. This change will result in a material increase in both sales and margin from consumables, the full impact of which will be realised from second half FY20.

Positioning for scalable growth

We continue to make significant investments in North America in terms of staff, service and distribution functions. During the year, we expanded our Indianapolis facility by 50% which provides the necessary infrastructure to support the ongoing growth that is being experienced.

Our North American team now numbers 62 across sales, clinical applications, marketing, service and operations. Plans are in place to continue to expand this team throughout FY20 to drive and support our ongoing growth.

References

1. Internal estimate based on historic regional estimates of the installed base of ultrasound consoles and those associated with procedures where high level disinfection may be required.
2. Carrico, R. M., *et al.* (2018). "Ultrasound probe use and reprocessing: Results from a national survey among U.S. infection preventionists." *Am J Infect Control* 46(8): 913-920. 3. Ultrasound Infection Prevention Toolkit (2018). Available at: <https://www.ultrasoundinfectionprevention.org/>

Europe and the Middle East

Throughout FY19 the fundamentals for adoption of trophon strengthened through increasing awareness of the importance of high level disinfection of ultrasound probes, the introduction of new guidance from the French Ministry of Health, an expanded European presence through new distribution agreements with GE Healthcare for the Nordics and Spain and Portugal, plus new distributor partnerships in Switzerland, Israel and Kuwait.

The timing of these growth drivers primarily came into effect in the second half FY19.

A Regional President for EMEA has been appointed and will commence in September 2019 and plans are in place to expand our direct operations, in particular in the UK and Germany, to leverage the strengthening fundamentals, growing sales pipeline and managing through what is a complex capital sales process.

United Kingdom

Increased educational awareness and disinfection guidelines continue to boost trophon adoption in the United Kingdom.

New guidance placing increasing importance on high level disinfection

The BMUS and Society and College of Radiographers have issued guidance requiring appropriate disinfection or sterilisation of ultrasound probes which draws on best practice infection prevention guidance for ultrasound probes published by NHS Wales and Scotland, as well as more recent guidance from the Health Service Executive of Ireland and the joint guidance from the Australasian College of Infection Prevention and Control and Australasian Society for Ultrasound in Medicine.

All of these guidelines highlight the importance of high level disinfection for all semi-critical ultrasound probes between patients to reduce the risk of cross-contamination. Importantly, healthcare facilities are now seeing the need to high level disinfect all semi-critical probes, including surface probes, as awareness grows on what ultrasound procedures confer semi-critical status on probes.

MES business model

The Managed Equipment Service (MES) business model introduced two years ago continues to support ongoing growth for the installed base which increased by 30% during FY19. Under the MES program, trophon capital equipment owned by Nanosonics is placed in hospitals. The facility pays an all-inclusive price for consumables in return for the use of the fully maintained capital equipment. Every hospital trust in Wales now has a trophon installed base due to the MES program and the numbers continue to expand across Scotland and England.

Infrastructure expansion

During the year Nanosonics moved to a larger facility to support the growing local business. In addition, the number of local employees continued to grow, and further resource expansion is planned for FY20.

France

Following the successful launch of trophon2 during FY19, updated reprocessing guidelines for the appropriate disinfection of endocavitary ultrasound probes were issued in March 2019 by the French Ministry of Health.

The recommendations were developed by a multidisciplinary group of experts, led by the President of the SF2H (French Society of Hospital Hygiene) and are presented as a nine-part compendium which is available on the Ministry's website.

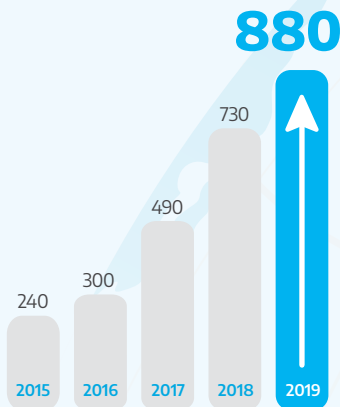
In contrast to prior Ministry of Health statements, the recommendations now require that endocavitary ultrasound probes undergo intermediate level disinfection even if a sheath is used. The term "intermediate level disinfection" in France is functionally equivalent to high level disinfection in other parts of the world and refers to processes that are bactericidal, mycobactericidal, virucidal and fungicidal.

Nanosonics has a distribution agreement with GE Healthcare in France and as result of these new guidelines, a number of joint education initiatives have commenced which are expected to be a driver for trophon growth throughout FY20.



Nanosonics Study Day in the United Kingdom with expert speakers: (left to right) Wayne Spencer, Authorising Engineer Decontamination, Spencer Nickson Ltd; Karren Staniforth, Clinical Scientist, Infection Prevention and Control, Nottingham University Hospitals; Claire Jones-Manning; Bryn Tudor-Owen, Nanosonics, Country Manager, UK and Ireland; Dr Peter Cantin, Consultant Sonographer, University Hospitals Plymouth NHS Trust; and Liz Collins, Clinical Lead Infection Prevention, University Hospitals of Leicester NHS Trust.

TROPHON INSTALLED BASE



trophon adoption grew 25% in Europe/ Middle East, driven mainly by the Managed Equipment Services business model in the United Kingdom and direct sales.

Germany

The trophon2 was successfully launched in Germany during FY19. trophon2 introduced a number of new capabilities to meet some specific German market requirements, such as the ability to provide detailed reports on all process parameters for each individual cycle. The key luminary site, University Hospital Frankfurt, upgraded all their trophon EPR devices to trophon2. One of the largest hospitals in Europe, the Charité Universitätsmedizin in Berlin, has also commenced adoption.

The sales process in Germany can be lengthy, involving a trial period first followed by appointment of an internal hospital project manager and committee recommendation before the budgeting process begins. Throughout FY19 a number of successful hospital trials took place, resulting in trophon being now in budget approval process.

The pipeline grew and continues to grow through this process. To support the sales process and leverage increasing awareness of the importance of bactericidal, mycobactericidal, fungicidal and virucidal disinfection, which is functionally equivalent to high level disinfection, the German team was expanded in FY19, and plans are in place for further expansion across sales and service throughout FY20.

As part of the access strategy to the important market of private practitioners in Germany, Nanosonics has signed a distributor agreement with Co-Med. Co-Med is Germany's largest association of dealers specialised in selling and servicing medical devices and medical technology with over 50 partners across Germany.

New European markets

A new agreement was established with GE Healthcare for distribution in two Nordic countries, Denmark and Finland, and the Iberian peninsula of Spain and Portugal. A new distribution agreement was also entered into for Switzerland.

Middle East

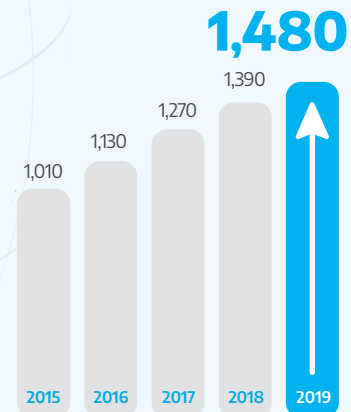
Distribution agreements are now active for Lebanon, Israel and Kuwait.

Regional highlights

Asia Pacific



TROPHON INSTALLED BASE



The Asia Pacific installed base is mainly associated with Australia/New Zealand where the market penetration is approximately 75% and growing.

Market expansion in Asia Pacific is becoming a greater priority as part of the strategic growth agenda for the organisation. To support this, a Regional President for Asia Pacific has been appointed. During the year, in addition to growing the trophon business in the already highly penetrated Australia/New Zealand market, important market development milestones were achieved in Japan and a market assessment study for China has commenced.



Big impression: trophon is now available for sale in Japan and was recently exhibited at a conference.

Australia/New Zealand

trophon is already the standard of care in Australia with an estimated market penetration of 75%. Sales continue to be driven by the previous release of a joint guideline between the Australian Society of Ultrasound in Medicine (ASUM) and the Australasian College for Infection Prevention and Control (ACIPC). This guideline emphasises the need to high level disinfect all probes used in semi-critical procedures (surface and intracavity).

Japan

Market development efforts in Japan continued with the establishment of a Nanosonics Japanese entity, the publication of the first pivotal study in Japan demonstrating probe contamination, and the recent signing of an agreement with GE Healthcare Japan, as well as the recent Japanese regulatory approval of trophon2.

Importantly, the Japanese clinical study has demonstrated significant ultrasound probe contamination. The study investigated the level of bacterial contamination on transvaginal ultrasound probes following standard probe cleaning. Of the contaminated probes, over 50% were found to harbour potentially pathogenic bacteria, including methicillin resistant *Staphylococcus aureus* (MRSA).

No data or regulations exist about residual bacterial contamination of transvaginal ultrasound probes in Japan and currently gynaecologists use probe covers and simple dry paper towel cleaning with or without low level disinfection.

The study outcomes were presented at the Japanese Society of Obstetrics and Gynecology (JSOG) in Nagoya during April 2019 and have been submitted for publication in the Journal of Medical Ultrasonics.

China

In late FY19, a Chinese market assessment commenced with visits to large hospitals, the Chinese Centre for Disease Control and regulatory authorities. Based on preliminary assessment, it is believed a significant opportunity for trophon may exist in China and the next stages of the market entry strategy will be conducted throughout FY20.

Our commitment to ESG

Nanosonics' mission is to improve the safety of patients, clinics, their staff and the environment by transforming the way infection prevention practices are understood and conducted, and introducing innovating technologies that deliver improved standards of care.

Nanosonics recognises that to achieve this goal we must seek simultaneously to understand and minimise our environmental impacts; meet our social responsibilities to our employees, customers and the broader community; and maintain high standards of corporate governance.

This year, as the Company has continued to grow, we have further developed our framework for ESG disclosure. We have undertaken our first materiality analysis to identify the environmental, social and governance topics which are most material for the Company and its key stakeholders. These will inform our business strategy and new product development priorities as well as guiding the content of this ESG report. Our work has been guided by the leading frameworks for ESG disclosure which have been developed over the past decade.

Nanosonics is proud to offer technology that protects over 70,000 patients every day from the risk of a healthcare associated infection from ultrasound procedures, reducing the burden on the healthcare system in the communities in which we operate. Further, the adoption of Nanosonics' technology means healthcare staff at thousands of customer sites are no longer exposed to the toxic chemicals previously used for ultrasound probe reprocessing. As our geographic footprint extends in North America, Europe, the Middle East and Asia Pacific, we are extending these benefits to more and more patients and healthcare staff.



Michael Kavanagh
CEO and President



Environmental, Social and Governance (ESG)

Corporate governance and ESG

The Board is committed to ensuring that its policies and practices reflect good corporate governance consistent with the Australian Securities Exchange (ASX) Listing Rules and the ASX Corporate Governance Principles and Recommendations.

The Corporate Governance Statement sets out Nanosonics' key corporate governance principles and practices, and the extent to which the Company has followed the recommendations set by the ASX Corporate Governance Council during the 2018/19 reporting period.

The Board and the Executive Team have responsibility for ensuring that ESG is integrated across the Company's operations, and that ESG reporting is balanced, fair and accurate. The Board is supported in this by the Audit & Risk Committee and its three other committees: the Nomination Committee, the Remuneration & People Committee, and the R&D and Innovation Committee.

Nanosonics' corporate governance framework is elaborated in its policies:

- Code of Conduct and Ethics
- Securities Trading Policy
- Clawback Policy
- Anti-Bribery and Anti-Corruption Policy
- Speak Up Policy
- Environmental Policy
- Privacy Policy
- Diversity Policy
- Continuous Disclosure and Shareholder Communications Policy
- Share Ownership Policy

Nanosonics' approach to strong corporate governance includes adherence to all applicable local and international laws, regulations and standards.

Stakeholder engagement

Nanosonics' key stakeholders are those groups, organisations or individuals who are potentially significantly affected by the Company's operations, products or services; or whose actions can reasonably be expected to affect the ability of the Company to implement its strategies or achieve its objectives. Nanosonics seeks to engage effectively with key stakeholders on topics relevant to them so as to understand and respond to their needs and concerns, and to inform them about Nanosonics' products and services.

Nanosonics has identified its key stakeholders and areas of interest. These are set out in the table below.

Key stakeholders identified by Nanosonics	Selected key ESG areas of interest for Nanosonics' stakeholders
Customers, including distributors, resellers and ultrasound probe manufacturers	<ul style="list-style-type: none"> • Public health and infection prevention • Price • Product safety • Ease of use • Fit within and streamline the clinical workflow
Suppliers	<ul style="list-style-type: none"> • Legal compliance • Ethical business practices
Investors/shareholders	<ul style="list-style-type: none"> • Financial performance (revenue and profitability) • Competitors in the market • Nanosonics' pipeline of new products • FDA and other regulatory approvals • ESG issues and risk management
Employees	<ul style="list-style-type: none"> • Gender equality • Diversity • Training and education • Safe and rewarding workplace
Government and regulatory authorities	<ul style="list-style-type: none"> • Product efficacy, safety and quality • WHS compliance • Ethical marketing • Tax strategy
Healthcare professionals and patients in hospitals in medical centres	<ul style="list-style-type: none"> • Reduction in healthcare associated infection through infection prevention technology • Ethical marketing • WHS compliance • Pipeline of new products solving unmet needs in infection prevention
Community and key opinion leaders	<ul style="list-style-type: none"> • Infection prevention • Ethical marketing • WHS compliance • Pipeline of new products solving unmet needs in infection prevention

Materiality assessment

In accordance with recognised frameworks for ESG reporting, Nanosonics has undertaken a comprehensive materiality assessment based on indicative responses provided by management on behalf of the Company's stakeholders. The intention is that in the near term, representatives of the Company's stakeholder groups will also provide responses.

The process was guided by an external consultant and comprised the following steps:

- Setting the context considering industry, environmental, social and regulatory trends
- Analysis of annual, sustainability and other relevant reports from benchmark companies, and the assessment frameworks of ESG rating agencies
- Identification of topics that have already been identified by Nanosonics through recent reports, briefings, presentations and other mechanisms
- Consideration of ESG topics listed in GRI and SASB standards

The following list of potential material topics was compiled through this process. Topics were assessed according to their importance to Nanosonics' key stakeholders and their impact on the Company, economy, society and the environment.

This ESG report focuses on the priority topics that have been identified.

Potential material topics identified by Nanosonics

- Addressing an unmet need in patient care
- Business ethics
- Business strategy, including strategic partnerships/relationships
- Collaboration/partnerships
- Competitiveness in the market
- Compliance with laws, including modern slavery and conflict minerals
- Contributions to the community
- Consultation with customers on product development
- Consultation with infection control peak bodies
- Customer education
- Diversity, equal opportunity and non-discrimination
- Economic value generated and distributed (as described by GRI)
- Enhancing customer experience
- Ensuring traceability
- Entering new markets
- Ethical marketing
- Fair trading and competition
- Labour, environmental and social practices in the supply chain
- Political contributions
- Product safety and quality
- Regulation and relationships with regulatory bodies
- Talent recruitment and retention
- Tax strategy
- Training and education
- Work, health and safety



Environmental, Social and Governance (ESG)

Providing access to new technologies for infection prevention and better patient care

Nanosonics has developed a novel high level disinfection technology, trophon, to address the critical and unmet needs of the many and increasing number of patients who undergo ultrasound procedures every day.

Ultrasound diagnosis technology continues to grow as an important medical diagnostic and therapeutic procedure throughout the world. For example, ultrasound is used routinely in obstetrics and gynaecology, radiology, cardiology, critical care and the operating theatre, along with many other specialty areas of care.

Healthcare associated infections (HAIs) are a significant healthcare issue worldwide and are considered the most frequent adverse event in healthcare.¹ HAIs cause significant patient morbidity and mortality and are a large burden upon the healthcare system, the economy and broader society.

As reusable medical devices, ultrasound probes present a potential source of cross-infection in hospitals and medical practices where pathogenic organisms can be spread from one patient to another. Studies have linked the increased use of ultrasound procedures to an increased incidence of cross-infection.²

Risk of cross-contamination with ultrasound probes is well established:

- 0.9-9% of barrier sheaths and condoms leak³
- A meta-analysis has shown that 12.9% of transducers are contaminated with pathogenic bacteria following routine disinfection⁴
- HPV, a known cause of cervical cancer, has been found on up to 7.5% of transvaginal ultrasound transducers following routine disinfection⁵
- A fatal case of Hepatitis B and non-fatal case of Hepatitis C have been attributed to improper ultrasound transducer disinfection^{6,7}
- Ultrasound transducer handles are not routinely disinfected and can harbour harmful pathogens, including MRSA⁸
- Six-year population-level study demonstrates increased risk of infection and antibiotic prescriptions following semi-critical ultrasound procedures²

Pathogenic bacteria, viruses and fungi can survive on the surface of ultrasound probes for extended periods if the probes are not cleaned and disinfected effectively.

If ultrasound probes are not correctly disinfected, there is a risk of transmission of potentially harmful infectious agents such as multi-drug resistant bacteria, blood borne viruses (e.g. hep B, HIV) or sexually transmitted infections such as chlamydia, gonorrhoea or human papillomavirus.

Higher risk ultrasound procedures such as those where the ultrasound may contact broken skin, mucous membranes or sterile tissue require a minimum of high level disinfection. The sensitive electronics in ultrasound probes mean they cannot generally undergo sterilisation in a steam autoclave and thus must be addressed through low temperature methods such as high level disinfection. Many high level disinfection processes involve the use of potentially hazardous chemicals which can pose a health risk to patients and staff through direct contact or inhalation.



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7. Medicines and Healthcare products Regulatory Agency (MHRA). Medical Device Alert. Reusable transoesophageal echocardiography, transvaginal and transrectal ultrasound probes (transducers) Document: MDA/2012/037. 2012.
8. Ngu A, McNally G, Patel D, *et al.* Reducing Transmission Risk Through High-Level Disinfection of Transvaginal Ultrasound Transducer Handles. *Infect Control Hosp Epidemiol*. 2015;36(5):1-4.

Nanosonics' patented trophon technology provides a new and effective way to achieve high level disinfection of ultrasound probes which does not damage the sensitive probe surface, nor expose patients, staff or the environment to dangerous chemicals.

It works by generating a sonically activated, supercharged hydrogen peroxide (H2O2) mist within the chamber. The probe is held in the chamber where the mist accesses all surfaces of the probe and its handle, killing bacteria, mycobacteria, viruses and fungi. Additionally, trophon has been demonstrated to inactivate forming *Clostridium difficile* spores in laboratory tests and has also been demonstrated to be effective in inactivating the cancer-causing human papillomavirus.

The trophon reprocessing standard contributes to the efficient workflow of the hospital or medical centre through a fast seven-minute cycle. Digital traceability RFID technology (AcuTrace™) captures and records operator, probe and cycle data to meet customer compliance requirements.

Nanosonics produces a range of accessories and consumable products across the reprocessing cycle. These include companion wipes facilitating the cleaning of organic material, microbial load, gel and other soils on the surface of probes before the high level disinfection process delivered by the trophon device, probe covers and connectivity solutions and services to allow customers to manage their reprocessing records.

Nanosonics' strategy for geographic expansion of access to its technology

To meet the increasing global demand for access to Nanosonics' technology, the Company is actively expanding the geographic footprint of its trophon sales and marketing activities globally through direct and distributor channels.

Nanosonics is the market leader in a number of critical and influential global markets, setting the standard of care in Australia/New Zealand and North America. The Company's global footprint also spans Europe, Asia Pacific including Japan, and the Middle East.

Innovation to deliver improved standards of patient care

Innovation is at the core of Nanosonics' business strategy and day-to-day operations. The cutting edge technology used in trophon has disrupted the disinfection market and was the first major innovation in ultrasound probe high level disinfection for more than 20 years.

Nanosonics consults closely with customers in the development of new products and the further development of existing product lines, responding to the needs of patients and healthcare providers.

Nanosonics protects its unique technology through coverage by 14 patent families. Most are active through to 2025 and in many cases beyond, including patents relating to the consumables which go out to 2029. It has an active program to continue to protect the IP in its technology.

Nanosonics has a large research and development team based in Australia with activities across mechanical, electrical, systems and software engineering, microbiology and chemistry.

It has an active R&D program, including the further evolution of the trophon2 technology and the development of new products for infection prevention in the clinical setting. Nanosonics has a dedicated team of clinical and microbiology specialists focused on ongoing research contributing to increasing knowledge, understanding and education in fields relevant to infection prevention for existing and new technologies.

Research and development expenditure continued to increase year on year to \$11.4 million in FY19; an increase of 15% over the previous year (2018: \$9.9 million).

Ensuring product safety, quality and reliability

Nanosonics is vigilant about the safety of its products from the R&D phase through to their use in the care of patients, and the final disposal of products and recycling of parts.

Patients and staff are protected throughout the probe disinfection process. The trophon delivers nebulised hydrogen peroxide within a sealed chamber. The hydrogen peroxide is supplied and added to the chamber in a sealed cartridge and is ultimately broken down into harmless water and oxygen following the disinfection process.

Nanosonics conducts extensive laboratory testing to validate the effectiveness of its products. The trophon technology goes beyond the minimum subset of microorganisms mandated by the regulatory authorities to have efficacy against a broad range of infectious pathogens.

Nanosonics' ISO 13485 compliant Quality Management System is vitally important to its continuing success in the production of advanced high level disinfection technology.

TROPHON IS PROVEN EFFECTIVE AGAINST A WIDE RANGE OF MICROORGANISMS

Vegetative bacteria

Carbapenem-resistant
Escherichia coli
Enterococcus hirae
Methicillin-resistant
Staphylococcus aureus
Neisseria gonorrhoeae
Pseudomonas aeruginosa
Staphylococcus aureus
Vancomycin-resistant
Enterococcus

Mycobacteria

Mycobacterium terrae
Mycobacterium avium

Bacterial endospores

Bacillus cereus
Bacillus subtilis subsp. spizizenii
Geobacillus stearothermophilus

Fungi

Candida albicans
Aspergillus (niger)

Viruses

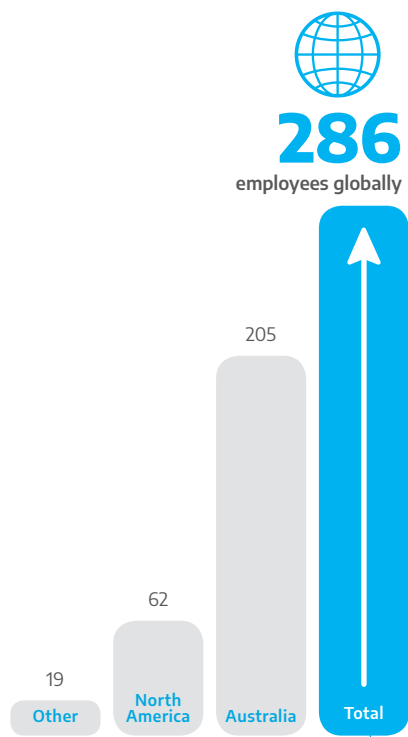
Adenovirus
Hepatitis C virus surrogate
(Bovine viral diarrhoea virus)
Human hepatitis B virus surrogate
(Duck hepatitis B virus)
Human immunodeficiency virus
Human papillomavirus
(HPV16 and HPV18)
Poliovirus

Chlamydia

Chlamydia trachomatis

Environmental, Social and Governance

In the past year Nanosonics' workforce increased by 27% to 286 employees globally to meet the needs of the growing business.



LOCATION/NUMBER OF EMPLOYEES (30 JUNE 2019)

Nanosonics' workforce increased

27%



women represented

36%

30% in senior management positions (2018: 29%)

17% at Board level (2018: 17%)

Engaging our people in an inclusive, safe and healthy workplace

This year the Company completed its first employee engagement survey, "Your Voice: Make it Heard". The completion rate was 84.9% (industry average being 72%) and it contained a number of important insights as well as confirming a high level of employee satisfaction and engagement.

Nanosonics' Diversity Policy encourages diversity at all levels of the organisation as a means of facilitating an appropriate mix of skills and talent to conduct its business. It believes that the pursuit of diversity in the workplace increases its ability to attract, retain and develop the best talent available, creates an engaged workforce, delivers the highest quality services to its customers, enhances individual work-life balance, encourages personal achievement, improves co-operation and assists in the optimisation of organisational performance.

Subject to the size and operations of the Company, the Board is committed to setting appropriate measurable objectives for the long-term goal of improving gender representation across all levels of the organisation.

During the year, the Company made progress against its FY19 diversity objectives relating to hiring (appointing a dedicated talent acquisition manager who applied defined selection criteria for all roles in line with the Company's anti-discrimination principles), training (two female senior executives were provided financial support and workplace flexibility), career advancement (female senior manager attended mentoring program to assisting career development) and the work environment (bullying and harassment training for all staff) which were set.

As at 30 June 2019, women represented 36% (2018: 35%) of Nanosonics' workforce, 30% in senior management positions (2018: 29%) and 17% at Board level (2018: 17%). Nanosonics defines senior management for this purpose as those who directly report to the CEO and those positions that report to the CEO's direct reports.

There have been 10 Internships/Graduate roles during the reporting period; four female and six male.

There are 30 nationalities represented across the organisation.

Nanosonics supports its employees to further develop their professional capabilities in order to extend their roles in the Company. To date there are four female staff undertaking professional leadership development or higher level tertiary education in management.

Nanosonics is an equal opportunity employer and remunerates women and men equally. Gender pay equality is achieved through a formal process of salary benchmarking all roles according to the role and the industry. Management is held accountable for ensuring pay equity outcomes from the formal remuneration review process.

The Company has a WHS Committee which oversees the Company's WHS safety metrics and goals. In FY19, 100% of staff received relevant WHS training, which included laboratory safety training, chemical awareness training, and education and support focused on active prevention strategies to prevent repetitive strain injuries and musculoskeletal disorders. There were 12 minor incidents reported in the period (all of which were closed) and no time was lost due to any workplace injury.

The Company's diversity objective for FY20 are as follows:

- The pay for a specific job type and level will be the same regardless of gender or cultural background taking relevant experience and skills into consideration
- Target 30% women at Board level and improve the current 30% for senior management
- Integrate diversity principles into the Company's recruitment framework by incorporating a diversity statement on all job advertisements globally and ensuring training for all hiring managers on diversity awareness, recognising unconscious bias, inclusive job description writing and best practice recruitment activities
- Seek to ensure the Company has a balanced selection of final round candidates, taking into account the principles of diversity (as described in the Company's Diversity Policy), for all Board and senior management roles, and seek to ensure there is diversity in the selection panel for each
- Target that 50% of all interns who are offered positions with the Company from the Nanosonics University Program are women
- Continue to implement programs that prepare selected high potential females to take on senior roles within the business both in operational and specialist support areas

Ensuring a culture of ethical behaviour

Nanosonics' Code of Conduct and Ethics sets out the obligations placed on all of its directors, executives, employees, advisors, contractors and consultants. They are expected to act with integrity and objectivity and to maintain the highest possible ethical standards in the Company's interactions with its stakeholders and the environment in which the Company operates.

Nanosonics does not tolerate any form of harassment or discrimination against personnel, customers, suppliers or other third parties.

Bribery and corruption

Like all industry participants, Nanosonics' activities could potentially expose the Company and staff to the risk of bribery and corruption. Nanosonics conducts business in an ethical and honest way and considers the risk to be low.

Nanosonics' Anti-bribery and Anti-corruption Policy applies "zero tolerance" to acts of bribery and corruption by Nanosonics staff and third party representatives. There were no reports of bribery and corruption notified in 2018/19.

Speak Up policy

Staff who raise a concern about possible bribery and corruption, fraudulent, illegal or other behaviour by other Nanosonics staff, that is contrary to the Company's policies, may raise their concern through line management. Where this is not suitable, they may contact a Speak Up Investigation Officer or access the Nanosonics Speak Up Portal. All concerns will be investigated while protecting the complainant from personal or financial disadvantage. During the year, there were no concerns reported in accordance with the policy.

Privacy and data security

Nanosonics is committed to protecting the privacy of personal and third party information and complies with the Privacy Act 1988 and other applicable legislation in all countries where it operates. It follows a Privacy Policy covering the collection, storage and use of personal information concerning individuals and formal contractual arrangements with third parties.

There have been no breaches of this policy reported in 2018/19.

Political contributions

Nanosonics makes no political contributions.

Anti-competitive behaviour

Nanosonics acts fairly and honestly when competing in the market. It complies with the anti-competitive behaviour provisions of the Australia Competition and Consumer Act and other applicable legislation in all countries where it operates. In particular it maintains high standards regarding the quality of the information it provides about its products and their use through advertising and product labelling.

Our supply chain

Nanosonics' trophon technology is assembled and tested ready for market at its site in Lane Cove West, Sydney. The component structural and electronic parts and accessories are sourced from local and international suppliers.

The hydrogen peroxide responsible for the trophon disinfection process is safely contained in cartridges which fit inside the trophon chamber ready for use.

Nanosonics recognises the growing pressure from stakeholders and regulators to extend its watch on its social and environmental impacts to take account of its supply chain.

The Australian Modern Slavery Act 2018 became effective on 1 January 2019 requiring businesses, including Nanosonics, to report annually on their efforts to identify and address any slavery risks in their operations and supply chains. Nanosonics' first report will be due by the end of 2020 and work has commenced to identify how risks of modern slavery practices may be present in its operations and supply chains.

Protecting the environment

Nanosonics is committed to minimising its impact on the environment at all stages throughout the life cycle of its products. This is elaborated on in its Environment, Health, Safety and Sustainability Policy.

Nanosonics is responsible for a very low level of natural resource consumption, including energy and water in the production and use of its products. It has minimal impact on the environment through emissions or the disposal of waste. Nanosonics leases accommodation at Lane Cove which includes supply of electricity through renewable sources and water and these are not metered separately.

Nanosonics ensures minimum environmental impact during operation of the trophon. Hydrogen peroxide used is broken down following the disinfection process to water and oxygen. Extensive leak testing is undertaken to ensure safety of the environment as well as patients and staff.

Nanosonics' response to climate change

The science of climate change is unequivocal and recent reports of the Intergovernmental Panel on Climate Change have emphasised the imperative to limit the further increase in the global average surface temperature to below 2.0°C, preferably below 1.5°C. This is being incorporated into international practice through the Paris Agreement on Climate Change to which Australia is a signatory.

Nanosonics does not belong to one of the industry sectors identified as facing the highest climate change risks. Nevertheless it recognises that there are transition risks such as regulatory, supply chain, and transportation risks which may impact future operations. It continues to be mindful of emerging government policies and advances in scientific understanding which may indicate emerging climate change risks or opportunities for Nanosonics. Whilst its operations make only a very small contribution to greenhouse gas emissions, Nanosonics utilises energy from solar panels on the roof of its Lane Cove premises.

Contributions to the community

As a good corporate citizen, Nanosonics seeks to make contributions to the communities in which it operates which go beyond its specific contributions to patient care and the economic value distributed through payments to employees, shareholders, government and suppliers.

Nanosonics encourages and supports employees to undertake charity events and fundraising initiatives throughout the year by providing entry fees, raffle prizes, and often matching amounts raised. It also supports workplace giving via a Corporate Citizen Program which enables employees to select a charity and have donations automatically deducted from their remuneration.

Financial performance

The Company's strong financial performance, reported elsewhere in this Annual Report, provides an indication of the direct economic value generated for the communities in which the Company operates. Economic value is also distributed through its operating costs, employee wages and benefits and payments to the government (i.e. taxes).

trophon[®] – the reprocessing standard for ultrasound probe high level disinfection

Ultrasound imaging is one of the most widely used and rapidly growing global diagnostic tools. With the ever-increasing challenges in the fight against the spread of Healthcare Associated Infections (HAIs), trophon is the global standard in ultrasound probe high level disinfection and reprocessing.

More than 70,000 patients a day are now protected from the risks of cross-contamination with trophon's powerful automated disinfection technology.

Why high level disinfection is important

To reduce the risk of cross-infection, many global guidelines, standards and Ministry of Health directives now recommend the high level disinfection of ultrasound probes used in semi-critical procedures. This includes both intracavitary (internal examination) procedures and surface ultrasound procedures (external examination) involving non-intact skin.

Studies have demonstrated that traditional methods of disinfection, such as soaking in chemicals, spraying or wiping, are inefficient, environmentally unsound and ineffective.

Nanosonics' trophon technology is clinically proven to inactivate an extended range of clinically infectious pathogens, including multi-drug resistant bacteria, blood borne viruses (Hep B, HIV) or sexually transmitted infections such as chlamydia, gonorrhoea or human papillomavirus.

Unlike other reprocessing methods, with trophon there is no exposure to harmful chemistries. This means while patients are protected from ultrasound probe cross-infection risk, clinic staff and the environment are protected from hazardous and toxic chemicals.

trophon: safe and easy to use

Point of care ultrasound has become a cornerstone in the diagnosis and treatment of patients in the emergency department, intensive care and obstetrics and gynaecology in both hospitals and private clinics.

This significantly broadens the scope for trophon usage and is a major benefit that we are leveraging as we look to drive increased penetration and expansion across markets. The fully enclosed system means trophon can be placed at the point of care where examinations are carried out. This maximises patient throughput and cost effectiveness.

Together, with its range of consumables and accessories, trophon is ideally positioned to meet high level disinfection requirements at the point of care.

Why trophon is so effective: sonicated hydrogen peroxide

The trophon system uses a proprietary hydrogen peroxide disinfectant that is sonically activated to create an ultrafine mist.

Free radicals in the mist have superoxidative properties enabling the disinfectant to act quickly and destroy pathogens. These fine mist particles are so small they can get into the shadowed areas created by crevices, grooves and imperfections on the probe surface.

The probe compatible solution

Having a high level disinfection system that is validated for use on their ultrasound probes is an important consideration for healthcare providers. Nanosonics works collaboratively with probe manufacturers to carry out extensive probe compatibility testing. More than 1,000 surface and intracavity ultrasound probes from all major and many specialist probe manufacturers are approved for use with trophon.



Reduces risk

Delivers protection for patients, without exposing staff and the environment to toxic and dangerous chemicals.

Improves clinical workflow efficiency

Streamlines set-up, can be customised to clinic workflows and has extensive probe compatibility with more than 1,000 probes approved for use with trophon.

Increases compliance

Enhances and simplifies user experience, delivering automated high level disinfection at the press of a button.

Increases audit-readiness


Digital traceability RFID technology (AcuTrace™) records operator, probe and cycle data to capture and demonstrate user compliance.

Data connectivity

AcuTrace™ PLUS activation allows trophon2 to integrate into a hospital IT system.

trophon from a customer perspective

trophon now has thousands of customers around the world in North America, Europe, the Middle East and Asia Pacific. This is having a fundamental and positive impact on healthcare facilities as trophon is helping to reduce cross-contamination risks while seamlessly improving workflows to deliver the best standard of care. Here are some of the trophon benefits experienced by our customers.



Lisa Antsy, Manager of Medical Reprocessing at **Grand River Hospital** in Ontario, Canada.

“We chose the trophon system because it stood out from the rest. We like the efficacy of the product and the fact that it’s proven to kill high-risk, cancer-causing HPV.”



Claire Jones-Manning, Decontamination Lead, **University Hospitals of Leicester NHS Trust** which is one of biggest and busiest NHS Trusts in the country, with 15,000 staff serving one million residents.

“When I started as the Decontamination Lead for the University Hospital of Leicester NHS Trust, staff were using a wipe system to clean the transvaginal probes. This system cannot be validated as an effective cleaning and decontamination system. As this is a manual process that relies on human factors, we were not happy to validate the probe had been cleaned effectively. trophon gives me the assurance of decontamination as you have both the print out and the Chemical Indicator. trophon is simple to use and for the clinic, it’s given us standardisation. The seven-minute disinfection cycle is not a problem as this releases time to care for patients in a busy clinic. Also this has given visual reassurance to all patients as they can see the machine in the clinics and see the staff removing the probe before use. We have written trophon use into our decontamination policy as best practice and we are looking at other areas of ultrasound probe use to ensure they are providing a safe, validated standard of decontamination to all their probes.”



University Hospital Frankfurt is the largest hospital in the German state of Hesse and has 32 clinics and 20 research institutes. It has more than 4,500 employees who treat around 270,000 patients each year. The hospital has a number of trophon2 devices across various clinics and departments.

The Deputy Head of Purchasing at the **University Hospital Frankfurt** is **Mr Axel Kudraschow**.

“My wish was very clear: to use a safe, automated, validated disinfection process, which can be used directly at the place of use and enables the user of ultrasound probes to always be able to use a safely disinfected ultrasound probe with short process times.

Of course, the topic of patient safety is essential for the users, meaning to ensure the maximum protection of patients through perfect hygiene within a reprocessing process. This is especially important for ultrasound probes, which can always come into contact with the skin, even in sensitive areas. The subject of patient safety was and is the driving force alongside all other benefits.

Furthermore, the safe documentation of the ultrasound probe disinfection was an important requirement for us, because everything that happens in medicine must be well described. trophon offers a good solution for demonstrating that the probes have been disinfected with high efficiency. Another important aspect was the ability to process ultrasound probes from all major manufacturers with this device.”

Sylvia Ford, MS, RN, CIC Infection Prevention Nurse 2 at **The University of Kansas Health System (TUKHS)**, USA.


“The ability to provide high level disinfection that is able to kill HPV at the point-of-care is absolutely phenomenal. It’s a huge time saver and supports safe device reprocessing.”



Raleigh White, CRA, RT(R), MA, Director of Imaging Services at **Hutchinson Regional Medical Center** in Kansas, USA

During Raleigh White’s 25-year career, he’s had several Joint Commission surveyors observe the hospital’s trophon high level disinfection processes and he’s been told repeatedly that trophon high level disinfection is the “gold standard” for maintaining patient and user safety by reducing the risks of cross-contamination between patients and reducing the spread of Healthcare Acquired Infections (HAIs).

“Everyone found the new trophon2 systems easy to operate and required very little training because the units are so intuitive.”



Steven Tucker, MD, FACOG, President and Medical Director of **Advanced Menstrual Care Center** in Townson, Maryland, USA

“In the private office setting, it’s important for me to be able to provide high-quality ultrasound capabilities to my patients. This, coupled with my commitment to quality and safety, necessitates that I use trophon2, as it is the only option there is for complete patient safety and full compliance. I no longer needed to be concerned about unknowingly contributing to the transmission of cross-infections.”



Steven Sargent
BBus, FAICD, FTSE
Non-Executive Director, Deputy
Chairman and Lead Independent
Director

Mr Sargent joined the Nanosonics Board in July 2016. He had a 22-year career with General Electric and has extensive global experience across a range of industries, including financial services and healthcare. He was Vice President and Officer of GE, a member of GE's Corporate Executive Council and CEO of GE Australia NZ. Mr Sargent is currently a Director of Origin Energy, Chairman of OFX Group, a Director of the Great Barrier Reef Foundation and Chairman of The Origin Foundation. Previously, Mr Sargent was a Director of Veda Group, a Director of Bond University and a Director of the Business Council of Australia.

David Fisher
BRurSc (Hons), MAppFin,
PhD, FFin, GAICD
Non-Executive Director

Dr Fisher has been a member of the Board since July 2001. Dr Fisher is a founding partner of Brandon Capital Partners, a leading Australian venture capital provider. He has more than 35 years' extensive operating experience in the biotechnology and healthcare industry in Australia and overseas. He held senior positions with Pharmacia AB (now part of Pfizer, Inc) and was CEO of Peptech Limited (now part of Cephalon Inc. (Nasdaq:CEPH). He was a Director of Aeris Environmental Ltd (ASX:AEI) from May 2011 to July 2014.

Marie McDonald
BSc (Hons), LLB (Hons)
Non-Executive Director

Ms McDonald joined the Nanosonics Board in October 2016, bringing with her a strong background in corporate and commercial law, having practised for many years as a partner at Ashurst. Ms McDonald was Chair of the Corporations Committee of the Business Law Section of the Law Council of Australia (2012 to 2013) and was a member of the Australian Takeovers Panel from 2001 to 2010. Ms McDonald is currently a Non-executive Director of CSL Limited, Nufarm Limited and the Walter and Eliza Hall Institute of Medical Research.



Richard England
FCA, MAICD
Non-Executive Director

Mr England joined the Board in February 2010. He is a chartered accountant and professional Non-executive Director. Mr England has been a Director of Japara Healthcare Limited (ASX:JHC) since April 2014 and a Director and Chairman of QANTM Intellectual Property Ltd (ASX:QIP) from August 2016. Mr England was appointed a Non-executive Director of Bingo Industries Limited in March 2017. He was a Director and Chairman of Ruralco Holdings Limited (ASX:RHL) from 2002 to September 2016 and Atlas Arteria (ASX: ALX), formerly Macquarie Atlas Roads Limited, from June 2010 to November 2018.

Michael Kavanagh
BSc, MBA (Advanced)
CEO, President and Managing Director

Mr Kavanagh joined Nanosonics as CEO and President effective October 2013. He was a Non-executive Director of the Board from July 2012 to October 2013. Mr Kavanagh has more than 26 years of international commercial experience in the healthcare market, having held local, regional and global roles in medical device and pharmaceutical industries. Before joining Nanosonics, he was Senior Vice President of Global Marketing for the major medical device company Cochlear Ltd, a position he held for more than 10 years. In the last three years Mr Kavanagh has held no other directorships.

Geoff Wilson
ACID, BCom, ICCA, CPA, US CPA
Non-Executive Director

Mr Wilson joined the Board in July 2019. He has a breadth of local and international executive leadership and director experience together spanning more than 37 years, including many years with KPMG in Australia, Hong Kong and the USA. He has a strong background in finance, audit and risk management, as well as in Asia Pacific markets. Mr Wilson is currently a Director of TOLL Holdings Limited, HSBC Bank Australia Limited, Future Generation Global Investment Company Limited, ipSCAPE, and Sydney Symphony Limited. He is also an Ambassador for the Australian Indigenous Education Foundation.

Maurie Stang
Non-Executive Chairman

Mr Stang has been Non-executive Director and Chairman since March 2007 and a member of the Board since November 2000. Mr Stang has more than two decades of experience building and managing companies in the healthcare and biotechnology industry in Australia and internationally. His strong business development and marketing skills have resulted in the successful commercialisation of intellectual property across global markets. He is a Non-executive Director of Vectus Biosystems and has been Non-executive Chairman of Aeris Environmental Ltd (ASX:AEI) since 2002.

Executive Team



McGregor Grant
BEc, CA, GAICD
**Chief Financial Officer
and Company Secretary**

McGregor joined Nanosonics in April 2011 and is responsible for the overall financial management of the Company, the IT function and, together with Michael Kavanagh, has joint responsibility for investor relations. He has more than 23 years' business experience in a number of senior roles in the medical device and healthcare industries located in Australia and the United States, and previously worked for Coopers & Lybrand (now PwC) in Australia and Europe.

David Morris
BBus, BAppSc, GAICD
**Chief Strategy Officer and
Regional President Asia Pacific**

David was a member of the Cochlear executive team for more than 14 years where he held a number of executive positions, including Senior Vice President of Strategy and Business Development, Global President for the Cochlear Bone Anchored Solutions Business based in Sweden and Chief Strategy Officer. Most recently, David was Chief Executive Officer and Managing Director for Monash IVF Group Limited.

Leanne Baxendale
BCom, MAHRI
Head of People and Culture

Leanne joined Nanosonics in March 2017. She has extensive experience in the People and Culture field gained from her work as an executive level strategic business partner in a wide range of national and international workplaces. Her key areas of experience include people and culture strategies, alignment and engagement strategies, high performance culture development, capability building and change management. Leanne combines her energetic approach and business acumen with her passion for people and culture to help drive commercial outcomes.

Steven Farrugia
BE, PhD
Chief Technology Officer

Steven joined Nanosonics as Senior Vice President, Design and Development, in September 2016 and was appointed to the role of CTO in February 2018. He has over 21 years' experience leading the development of medical devices. Prior to Nanosonics, Steven held a range of senior executive roles with ResMed, including VP of Technology and VP of Product Development. He is an inventor of almost 300 granted and pending patents and is an Adjunct Professor of Engineering at The University of Sydney. In addition to Design and Development, Steven is responsible for the Regulatory Affairs function of the Company.

Michael Kavanagh
BSc, MBA (Advanced)
**CEO, President and
Managing Director**

Michael joined Nanosonics as CEO and President effective October 2013. He was a Non-executive Director of the Board from July 2012 to October 2013. Michael has more than 26 years of international commercial experience in the healthcare market, having held local, regional and global roles in medical device and pharmaceutical industries. Before joining Nanosonics, he was Senior Vice President of Global Marketing for the major medical device company Cochlear Ltd, a position he held for more than 10 years.



Rod Lopez
MBA, BEng (Hons), GAICD
Chief Operating Officer

Rod is an international operations executive with over 20 years of experience, having held critical roles in companies such as Cochlear and GM Holden. During his 13-year tenure at Cochlear, Rod held transformative roles such as Global Head of Manufacturing and Chair of the Operational Excellence Strategy Group. At GM Holden, Rod held senior management roles such as Launch/Operations Manager of Holden's \$400m HFV6 engine plant, and Global Customer Liaison Manager. Rod is also an award-winning academic with continuing Adjunct Faculty appointments for over 12 years with MGSM, AGSM and the University of Sydney Business School.

Ronan Wright
Regional President Europe /
Middle East / Africa (EMEA)

Ronan will join Nanosonics on 9 September 2019 and has more than 20 years' experience in the infection prevention market. Previously he worked with Wassenburg, a global leader in endoscopy reprocessing. Most recently he was the Vice President of Global Sales and a Board member. Prior to that, Ronan was the Managing Director of Wassenburg Ireland and Business Unit Director at Wassenburg Medical B.V.

Ken Shaw
BSc Finance
Regional President for the United
States, Canada and Latin America

Ken joined Nanosonics in September 2017 as Regional President for the United States, Canada and Latin America. He has more than 20 years' experience in the healthcare, medical devices and consumer products industries. Most recently Ken was the President for Amoena GmbH and prior to that he held general management roles at BSN Medical, Medicom, Energizer and Pfizer.

Renee Salaberry
MBA, GAICD
Chief Marketing Officer

Renee joined Nanosonics in January 2019. She is a highly experienced international marketer having launched and developed brands for major global clients including Pfizer, Nestle, and GE Healthcare. Renee has held senior executive roles including Executive Vice President and Worldwide Strategy Director for one of the world's largest advertising agencies, Leo Burnett based in Chicago, and as Worldwide Chief Strategy Officer for the Publicis Healthcare Communications Group based in Paris. Renee was Strategic Planning Director for Saatchi & Saatchi Health, APAC. She has held marketing and finance roles for Merck, Sharp & Dohme and the Commonwealth Bank. Most recently, Renee was Head of Marketing for Abbott Nutrition, ANZ.

Directors' report

Your Directors submit their report together with the Consolidated Financial Report of Nanosonics Limited and its subsidiaries (the Group or Nanosonics), for the year ended 30 June 2019, and the Auditor's Report thereon.

Principal activities

During the year the principal activities of the Group consisted of:

- Manufacturing and distribution of the trophon® ultrasound probe disinfectant and its associated consumables and accessories; and
- Research, development and commercialisation of infection control and decontamination products and related technologies.

There have been no significant changes in the nature of these activities during the year.

Review of operations and financial results

Revenue for the year amounted to \$84,324,000 (2018: \$60,698,000), an increase of \$23,626,000 or 39%. North American revenue increased by \$22,105,000 or 41% to \$76,511,000, reflecting a 29% increase in capital revenue and a 50% increase in consumables and service revenue. Revenue in Europe and Middle East increased by \$819,000 or 27% to \$3,802,000, with capital revenue increasing by 21% and consumables and service revenue increasing by 30%. Revenue in Asia Pacific amounted to \$4,011,000, an increase of 21% or \$702,000 compared with the previous year, with capital revenue increasing by 29% and consumables and service increasing by 20%.

Gross profit increased by 39% to \$62,816,000 compared with \$45,291,000 in the prior period. Gross margin as a percentage of sales was 74.5% compared with 74.6% in the previous year.

Selling, general and administration expenses (SG&A) were \$37,805,000 (2018: \$32,689,000). The increase in SG&A of \$5,116,000 was mainly to support the increased sales in North America and market expansion activities in Europe and other markets, expansion of internal operational capacity and capabilities including the hiring of new executives to support a growing global organisation, and the transition of a distributor to a new agreement from 1 July 2019.

Research and Development expenses (R&D) for the year were \$11,375,000, an increase of over 15% compared with \$9,882,000 in 2018. This increase is in-line with the Company's commitment to strategic investment in R&D targeted at design and development activities associated with a novel solution aimed at addressing unmet needs in the infection prevention field, as well as the ongoing development of the trophon technology.

Other income for the period amounted to \$24,000 (2018: \$93,000).

Other gains amounted to \$1,842,000 (2018: \$1,549,000) and comprised mainly of net gain in foreign currency.

Finance income amounted to \$1,571,000 (2018: \$1,279,000) which related to interest earned on cash and cash equivalents. Finance expense for the year of \$243,000 related to interest on leases and the financing component on cash received in advance on customer contracts, Finance expense in 2018 amounted to \$58,000 and related interest on leases.

Income tax expense for the period was \$3,228,000 and compares with an income tax benefit of \$168,000 in 2018. Following an assessment of the Group's Canadian and UK operations, it has been determined that taxable profits will be generated by the Canadian and UK subsidiaries against which carried forward tax losses and deductible temporary differences will be realised. Accordingly, previously unrecognised deferred tax assets in relation to the Canadian and UK entities were recognised as a non-current asset to the extent of available future taxable profits in the near term. Further information on the income tax expense and movements on net deferred tax assets are detailed in note 3.

The consolidated profit after tax amounted to \$13,602,000 (2018: \$5,751,000).

The Group ended the year with \$72,180,000 (2018: \$69,433,000) in cash and cash equivalents, an increase of \$2,747,000. The cash and cash equivalents balance provides a strong balance sheet for the Company to continue executing on its growth strategies.

Cash flow for the year was impacted by an increase in trade and other receivables of \$11,087,000 due to aligning payment terms with a key distributor with our standard payment terms and the timing of sales and payments by that distributor, and an increase in inventory of \$5,082,000 associated with the launch of trophon2.

Further information on the operations of the Group and its business strategies and prospects are included in the CEO's report and the Regional highlights on pages 6 to 16 of this Annual Report.

Material business risks

Nanosonics has a risk management framework to identify, assess and appropriately manage risks. Details of the risk management framework are set out in the 2019 Corporate Governance Statement, which is available on the Company's website. Nanosonics' material business risks and how they are addressed are outlined below. These are risks that may materially adversely affect the Group's business strategy, financial position or future performance. It is not possible to identify every risk that could affect the Group's business, and the actions taken to mitigate these risks cannot provide absolute assurance that risk will not materialise. Other risks besides those detailed below or in the financial statements could also adversely affect Nanosonics' business and operations, and the material business risks below should not be considered an exhaustive list of potential risks that may affect Nanosonics.

Risk	Description and potential consequences	Strategies used by Nanosonics to mitigate the risk
Significant distribution customer	The Group's key distribution customer accounts for approximately 54% of the Group's revenue (see note 2.2 of the financial statements), the majority of which is in United States, Nanosonics' largest market. Nanosonics is aware of the need to continue to closely manage its key distribution customer, including closely managing any changes in its commercial and contractual relationship with that distributor as the parties transition to a new agreement which came into effect from 1 July 2019.	<p>The Group has further strengthened its own direct operations in North America and now has significant direct sales operations in place which continue to grow and can be scaled further. The Group also has its own operations in its other key markets.</p> <p>The Group continues to invest in infrastructure in the North American market to assist the business to scale, as well as research and development with a view to diversifying its product portfolio.</p>
Research and Development and commercialisation	Nanosonics currently has a platform technology, trophon, and recognises the need to expand its product portfolio by creating new products. Development and subsequent commercialisation of any new product requires a significant amount of investment (time, money and resource commitment) and is necessarily uncertain. New products are also likely to require a range of regulatory approvals.	<p>To manage these risks, the Company has a clearly defined framework to support the processes covering product ideation, development and subsequent commercialisation and has made the development of additional technologies a key strategic priority and investment.</p> <p>Nanosonics also engages with a range of experts in relevant fields, as well as customers, to determine the focus of its R&D efforts.</p>
Competition	The potential for increased competition exposes Nanosonics to the risk of losing market share. Nanosonics is also exposed to the risk of medical and technological advancement by competitors where alternative products or methods are developed and commercialised that will impact the rate of adoption of trophon, cause trophon to lose existing market share, or render trophon obsolete.	To address this risk, the Company has invested in R&D for the second generation of trophon, trophon2, which was released to the market during the period, and continues to invest heavily in product diversification. The trophon2 is now sold in a number of key markets, and regulatory approvals continue to be obtained in new markets.
Intellectual Property	<p>The Company relies heavily on its ability to maintain and protect its intellectual property (IP) including registered and unregistered IP.</p> <p>Nanosonics recognises the potential risk of litigation for alleged infringement by Nanosonics, the need to prosecute third party infringers of Nanosonics' IP, the expiry of Nanosonics' registered IP, and the risk of being unable to register the underlying subject matter or processes in any new products.</p>	<p>Nanosonics seeks appropriate patent, design and trade mark protection and manages any identified IP risks. Along with internal personnel to manage IP opportunity and risk, Nanosonics works closely with specialists and advisors internationally to monitor and manage its IP opportunities and risks.</p> <p>The trophon, for example, is covered by 14 patent families. Most are active through to 2025 and in many cases beyond, including patents relating to the consumables which do not expire until 2029. The Group has an active program to continue to protect the IP in its technology, as well as develop other barriers to entry.</p> <p>Nanosonics ensures that its projects, products and related activities include an appropriate assessment of any third party IP profile against its own IP profile.</p>
Supply chain	The Group is highly aware of managing risks in the supply chain, particularly its dependence on critical suppliers for the supply of key materials which carries the risk of delay and disruption. Certain materials are available from sole suppliers, and regulatory requirements could make substitution costly and time-consuming.	The Group regularly monitors its suppliers and their performance, and seeks to enter into agreements, where appropriate, to mitigate any supply risk. Inventories are managed in sufficient quantities for continued product supply in the short term.
Regulation	The Group operates in a highly regulated industry. Medical devices are subject to strict regulations of various regulatory bodies where the products are sold, and those regulations differ throughout the countries in which the Company operates and also change. Regulatory bodies perform regular audits of Nanosonics' manufacturing sites as well as its third party suppliers and failure to satisfy regulatory requirements presents significant risks, including potentially compromising the Company's ability to sell products, and/or result in an adverse event such as a	The Group has a highly developed worldwide Quality Management System to manage this risk, and invests in highly qualified personnel. Nanosonics monitors the changing regulatory landscape in the countries in which it operates, and ensures that its operations adjust to any changes which apply to it.

Directors' report

Risk	Description and potential consequences	Strategies used by Nanosonics to mitigate the risk
Financial	The Group is exposed to foreign currency risk and credit risk in light of the international nature of its operation.	These risks are managed through its internal financial risk management policy. The Company seeks external advice as appropriate. Further information is available in note 8 to the financial statements.
Product liability	The Company recognises the risk that its products (or their use) may cause damage to a third party given the nature of the product and the industry the Company operates in.	The Group has product liability insurance and operates a strict Quality Assurance system across all aspects of the design, manufacture and release of products to market.
Personnel	Nanosonics recognises that providing a safe and rewarding working environment is critical to its sustainability. Further, the Company operates in a competitive market in relation to attracting and retaining key talent, including scientific and engineering talent.	The Company has programs in place both for WHS and the attraction and retention of talent.
Cyber security and IT	<p>Nanosonics recognises the increasing risk associated with cyber security and the potential impact on the Company's operations. A cyber security incident could lead to a breach of privacy, loss and/or corruption of commercially sensitive data, and/or a disruption of critical business processes. This may adversely impact customers and the Company's business activities.</p> <p>The Company also recognises the need to ensure operations can continue in the event of a disaster impacting its critical IT systems.</p>	Nanosonics has a cyber security strategy and disaster recovery plan which it continues to implement with a view to safeguarding the business against these risks.

Significant changes in the state of affairs

In the opinion of the Directors, other than the matters described above and in the review of operations included in the CEO's report and Regional highlights on pages 6 to 16 of this report, there were no significant changes in the state of affairs of the Group during the financial year under review and to the date of this report.

Dividends – Nanosonics Limited

The Directors do not recommend the payment of a dividend for the financial year ended 30 June 2019. No dividends were proposed, declared or paid during the financial year (2018: Nil).

The Board reviews the dividend policy regularly. The Company's dividend policy in the future will depend upon the profitability and the financial position and the capital allocation priorities of the Group at the relevant time.

Matters subsequent to the end of the financial year

No matter or circumstance has arisen since 30 June 2019 that has significantly affected, or may significantly affect:

- The Group's operations in future financial years;
- The results of those operations in future financial years; or
- The Group's state of affairs in future financial years.

Likely developments and expected results of operations

Comments on expected results of the operations of the Group are in the review of operations included in the CEO's report and Regional highlights on pages 6 to 16 of this report.

Further information on likely developments in the operations of the Group and the expected results of operations have not been included in this annual report because the Directors believe it would be likely to result in unreasonable prejudice to the Group.

Environmental regulation

The Group is subject to statutory environmental regulations. The Board believes that the Group has adequate processes in place to manage its environmental regulatory obligations and is not aware of any breach of those environmental regulations as they apply to the Group. Further information is set out in the Environmental, Social and Governance disclosures on pages 17 to 23 to this Annual Report.

Directors and Company Secretary

During the year, the Board of Nanosonics Limited comprised Maurie Stang, David Fisher, Richard England, Michael Kavanagh, Steven Sargent and Marie McDonald. Geoff Wilson joined the Board as an independent Non-executive Director on 17 July 2019. During the year and to the date of this report, McGregor Grant is the Company Secretary. Mr Rob Waring was a Co-Company Secretary until 19 July 2018.

As at the date of this report, Nanosonics Limited has the following committees of the Board: Audit and Risk, Remuneration and People, Nomination, and R&D and Innovation. Details of members of the committees of the Board during the year are included and on page 36 in the Remuneration report.

Information on the Directors, Company Secretary and the executive team is a part of the Directors' report and can be found on page 36 in the Annual Report.

Meetings of Directors

The number of Directors' meetings, including meetings of the committees, held during the year ended 30 June 2019, and numbers of meetings attended by each of the Directors were as follows:

	Meetings of committees									
	Full meetings of Directors		Audit and Risk		Nomination		Remuneration & People		R&D and Innovation ²	
	Held	Attended	Held	Attended	Held	Attended	Held	Attended	Held	Attended
Maurie Stang	10	10	4	4 ¹	2	2	5	5	3	3
Richard England	10	10	4	4	2	2	5	5	3	2 ¹
David Fisher	10	10	4	4	2	2	5	5 ¹	3	3
Steven Sargent	10	10	4	4 ¹	2	2	5	5	3	3
Marie McDonald	10	10	4	4	2	2	5	5	3	2 ¹
Michael Kavanagh	10	10	4	4 ¹	2	2 ¹	5	5 ¹	3	3

1. Attended in part or in full in ex-officio capacity.

2. In addition to the R&D and Innovation Committee meeting held during the year, R&D matters were considered on a regular basis at Board meetings.

Share-based payments

Shares issued and performance rights and options granted under the share-based compensation plans during the year are detailed below.

Shares issued

During the year ended 30 June 2019 and to the date of this report, the Company issued a total of 622,200 (2018: 1,612,124) new ordinary shares in Nanosonics Limited. These shares were issued pursuant to the exercise of performance rights under the share-based compensation plans.

No amount was unpaid on any of the shares issued.

As at 30 June 2019, there were 299,967,279 (2018: 299,345,079) ordinary shares in Nanosonics Limited on issue. At the date of this report, there were 299,967,279 shares on issue. Further information on issued shares is provided in the Contributed equity and the share-based payments note to the financial statements.

Share options granted

During the financial year and to the date of this report, the Company granted, under the terms and conditions of the Nanosonics Omnibus Equity Plan for no consideration, 498,134 (2018: 760,994) unquoted performance rights and 1,392,296 (2018: 840,978) unquoted share options over unissued ordinary shares in Nanosonics Limited. Further information on the grants is in share-based payments note 4.3 to the financial statements.

Shares under option

At the date of this report, there were 4,003,629 unissued ordinary shares of Nanosonics Limited under option as detailed below. As at 30 June 2019, there were 4,003,629 (2018: 3,259,953) unissued ordinary shares of Nanosonics Limited under option. Further information on the options is provided in the share-based payments note to the financial statements.

Share-based compensation plan	Number of shares under option
Omnibus Equity Plan	3,618,841
Employee Share Option Plan	384,788
Total shares under option at 30 June 2019 and to the date of this report	4,003,629

The options entitle the holder to participate in a share issue of the Company provided the options are exercised on or after their vesting date and prior to their expiry date. No option holder has any right under the options to participate in any other share issue of the Company or any other entity.

Directors' report

Indemnifying officers or auditor

During the financial year, the Company paid insurance premiums to insure the Directors and secretary and KMP of the Company and its controlled entities.

The liabilities insured are legal costs that may be incurred in defending civil or criminal proceedings that may be brought against the officers in their capacity as officers of entities in the Group, and any other payments arising from liabilities incurred by the officers in connection with such proceedings. This does not include such liabilities that arise from conduct involving a wilful breach of duty by the officers or the improper use by the officers of their positions or of information to gain advantage for themselves or someone else or to cause detriment to the Company. It is not possible to apportion the premium between amounts relating to the insurance against legal costs and those relating to other liabilities.

The Directors have not included in this report the amount of the premium paid in respect of the insurance policy, as such disclosure is prohibited under the terms of the contract.

To the extent permitted by law, the Company has agreed to indemnify its auditors, Ernst & Young, as part of the terms of its audit engagement agreement against claims by third parties arising from the audit (for an unspecified amount). No payment has been made to indemnify Ernst & Young during or since the financial year.

Proceedings on behalf of the Company

No person has applied to the Court under section 237 of the Corporations Act for leave to bring proceedings on behalf of the Company or intervene in any proceedings to which the Company is a party, for the purpose of taking responsibility on behalf of the Company for all or part of those proceedings.

No proceedings have been brought or intervened in on behalf of the Company with leave of the Court under section 237 of the Corporations Act.

Rounding

The amounts contained in this report and in the financial report have been rounded to the nearest thousand dollars (\$'000) (where rounding is applicable) and where noted (\$'000) under the option available to the Company under ASIC Instrument 2016/191. The Company is an entity to which that Instrument applies.

Non-audit services

The Company may decide to employ the auditor on assignments additional to their statutory audit duties where the auditor's expertise and experience with the Company and/or the Group are important.

The Board of Directors has considered the position and, in accordance with advice received from the Audit and Risk Committee, is satisfied that the provision of the non-audit services by the auditor, if any, did not compromise the auditor independence requirements of the Corporations Act for the following reasons:

- a. All non-audit services have been reviewed by the Audit and Risk Committee to ensure they do not impact the impartiality and objectivity of the auditor.
- b. None of the services undermines the general principles relating to auditor independence as set out in APES 110 Code of Ethics for Professional Accountants as they did not involve reviewing or auditing the auditor's own work, acting in a management or decision making capacity for the Company, acting as an advocate of the Company or jointly sharing risks and rewards.

During the year, the auditor of the Group, Ernst & Young provided certain other services in addition to its statutory duties. These activities were conducted in accordance with the Company's Auditor Independence Policy, and in the Company's view did not compromise their independence.

Details of amounts paid or payable to the auditor of the Group in relation to audit and non-audit services are disclosed in note 10.5 to the financial statements.

Officers of the Company who are former audit partners of Ernst & Young

There are no officers of the Company who are former audit partners of Ernst & Young.

Auditor's independence declaration

A copy of the Auditor's Independence Declaration as required under section 307C of the Corporations Act is included on page 94 of this report.

Auditor

The previous auditor, UHY Haines Norton, resigned effective from the conclusion of the AGM meeting on 3 November 2017. Ernst & Young was appointed auditor effective from 3 November 2017 and continues in office as auditor in accordance with section 327 of the Corporations Act.

Corporate Governance

The Company's Corporate Governance Statement and the ASX Appendix 4G are released to ASX on the same day the Annual Report is released, and the Corporate Governance Statement and Corporate Governance Manual can be found on the Company's website at <http://www.nanosonics.com.au/Investor-Centre/Corporate-Governance>

Remuneration

The Remuneration Report forms part of this Director' Report.

The Directors' report, which includes the review of operations in the CEO's report and the Regional highlights (on pages 6 to 16), the Information on the Board and the Executive Team (on pages 26 to 29) and the Remuneration Report (on pages 35 to 54), is made on 27 August 2019 and signed in accordance with a resolution of Directors, pursuant to section 298(2) of the Corporations Act.



Richard England

Director, Sydney
27 August 2019

Remuneration report – audited

Letter from the Chair of the Remuneration & People Committee

Dear Shareholders,

On behalf of the Remuneration & People Committee and the Board, I am pleased to present the Remuneration Report for the year ended 30 June 2019.

The 2019 Financial Year was another successful year for the Company. Record sales and operating income before tax were achieved, and significant progress was made in the development of new products. Over the course of the year, this progress was reflected in the Company's share price which has increased by 78% during FY19 – a reflection of our team's progress against its strategic agenda.

During the year the Company implemented a simpler remuneration framework aimed at providing a clear line of sight between Company performance and remuneration outcomes, as well as driving deep alignment between the interests of employees and shareholders. The Remuneration & People Committee will regularly review the Company's remuneration framework to assure its fitness for purpose in a constantly changing business context. With that in mind, we expect to see further refinements to encourage alignment with shareholder experience during the 2020 Financial Year, including the introduction of new Employee Share Purchase Plans. The Company has introduced a policy requiring a minimum level of share ownership by Non-executive Directors and Executive Key Management Personnel to further ensure full alignment with our shareholders.

In the second half of the year, the executive capability of the business has been enhanced by the appointment of four new Executives, including Regional Presidents in Asia Pacific and Europe/Middle East. All four individuals have deep experience in the medical device industry.

The executive remuneration outcomes are detailed in Section 4 of this Report and show that the overall achievement of FY19 Short-Term Incentive was at 80.3%, reflecting a solid performance against the Company and Individual Performance Objectives that were set by the Board.

During the year, the Remuneration & People Committee engaged a consultant, Laurie Wood at HR Ascent Pty Ltd, to provide benchmarking data to assist the Committee review the remuneration of the Non-executive Directors, which has remained unchanged since 1 July 2016. Three peer groups were considered, being healthcare sector companies, all industries (excluding finance and resources) with a similar market cap, and the ASX 200 (excluding finance and resources). As a result of this review, and taking into consideration the increased workload of the Board, the Board considered it appropriate to increase annual base fees to \$100,000, with the Chairman's fee increased to \$225,000, and the Deputy Chairman's fee increased to \$135,000. Adjustments were also made to increase the Committee Chair fees to \$20,000, as well as introduce a fee for Committee membership of \$10,000 for each member. Overall, I believe these increases are appropriate, reflective of the market and are commensurate with the continued growth and increasing complexity of the business. Further, the total amount of fees paid to Non-executive Directors is within the aggregate amount approved at a general meeting of the Company on 4 November 2016 of \$1,000,000 a year.

In addition, HR Ascent Pty Ltd conducted a benchmarking in relation to the CEO & President's remuneration. Following this review, the Board approved an increase of the CEO & President's base salary from \$620,000 p.a inclusive of superannuation to \$700,000 p.a. plus statutory superannuation.

The business has a strong and positive culture. The Board believes this is a function of a number of factors, including the high quality of the Company's leaders, as well as the balanced and fair approach to remuneration. This was reflected in the results of Nanosonics Global Engagement Survey which was conducted for the first time in August 2018 where the Company scored 16% above industry average in relation to "believing in Company mission". On behalf of the Committee, I look forward to seeing more positive results when the survey is conducted again in August 2019.



Steve Sargent

Chairman, Remuneration & People Committee

Contents

The Remuneration Report for the year ended 30 June 2019 (2019 Financial Year or FY19) forms part of the Directors' Report. Except as otherwise noted, it has been prepared in accordance with the Corporations Act 2001 (Cth) (the Act) and in compliance with AASB124 Related Party Disclosures, and audited as required by section 308(3C) of the Act.

The report is divided into the following Sections:

- 1 People covered by this report
- 2 Remuneration philosophy and link to business strategy
- 3 Executive remuneration framework and overview of incentive plans
- 4 Executive remuneration outcomes
- 5 Statutory disclosures
- 6 Executive service agreements
- 7 Remuneration governance
- 8 Non-executive Director remuneration
- 9 Key Management Personnel transactions

Remuneration report – audited

1.0 PEOPLE COVERED BY THIS REPORT

This report covers Key Management Personnel (KMP) which are defined as those who have the authority and responsibility for planning, directing and controlling the activities of Nanosonics. During the year the definition of KMP was reviewed and it was determined that the individuals identified in the table below were considered to be the KMP of the Company.

Name	Position ¹	Change in 2019 Financial Year
Non-executive Directors		
Maurie Stang	Chairman; Chairman, Nomination Committee; Member, Remuneration & People Committee; Member, R&D and Innovation Committee	
Steven Sargent	Deputy Chairman; Lead Independent Director; Chairman, Remuneration & People Committee; Member, R&D and Innovation Committee; Member, Nomination Committee	
Richard England	Director; Chairman, Audit and Risk Committee; Member, Remuneration & People Committee; Member, Nomination Committee	
David Fisher	Director; Chairman, R&D and Innovation Committee; Member, Audit and Risk Committee; Member, Nomination Committee	
Marie McDonald	Director; Member, Audit and Risk Committee; Member, Remuneration & People Committee; Member, Nomination Committee	
Executive Director		
Michael Kavanagh	Chief Executive Officer & President (CEO&P) and Managing Director; Member, R&D and Innovation Committee	
Executive KMP		
McGregor Grant	Chief Financial Officer (CFO) and Company Secretary	
Steven Farrugia	Chief Technology Officer	
David Morris	Chief Strategy Officer and Regional President, APAC	Appointed Chief Strategy Officer and Regional President, APAC on 4 February 2019
Rod Lopez	Chief Operating Officer	Appointed Chief Operating Officer on 4 March 2019
Gerard Putt	Chief Operations Officer	Ceased being a KMP from 4 March 2019
Ken Shaw	Regional President, North America	It was determined that Mr Shaw was a KMP effective from 1 July 2018

1. Position held for full year and to the date of the Directors' Report, unless otherwise stated.

2.0 REMUNERATION PHILOSOPHY AND LINK TO BUSINESS STRATEGY

Nanosonics is a high growth medical technology company with operations in nine countries. Nanosonics' executive remuneration strategy is designed to attract, retain and motivate a highly qualified and experienced group of executives.

The Board has a strong growth focus and the executive remuneration policies are designed to direct behaviours towards achieving sustainable growth in shareholder value over the medium to long-term. However, it should be understood that to attract, motivate and retain high performing executives and in the face of strong competition for talent, some flexibility in the Company's approach is required.

The Board believes that Nanosonics' remuneration strategy is to provide 'fair and appropriate' remuneration based on a risk and reward framework that supports its business strategy in the short and long-term. A detailed explanation of the Company's executive remuneration framework is provided in section 3.

3.0 EXECUTIVE REMUNERATION FRAMEWORK AND OVERVIEW OF INCENTIVE PLANS

3.1 Executive remuneration framework

Executive KMP remuneration objectives			
An appropriate balance of 'fixed' and 'at-risk' components.	Attract, motivate and retain executive talent.	The creation of reward differentiation to drive performance and behaviours.	Shareholder value creation through equity components.
Total remuneration			
FIXED	AT RISK		
Total Fixed Remuneration (TFR)	Short-Term Incentives (STI)	Long-Term Incentives (LTI)	
Fixed remuneration is set based on relevant market relativities, reflecting responsibilities, performance, qualifications, experience and location.	STI performance criteria are set by reference to Company and Individual performance targets relevant to the specific position.	LTI targets are linked to Total Shareholder Return outperformance measures.	
Delivery			
Base salary plus any fixed elements related to local markets, including superannuation or equivalents.	Part cash and part equity. The equity component is deferred for 1 year and remains 'at risk' until vesting. The resulting equity is held as restricted shares for a further year.	Equity is held subject to performance and service over a 3 year measurement period. The equity is 'at risk' until vesting.	
Strategic intent and marketing positioning			
TFR will generally be positioned at the median compared to relevant market based data taking into consideration expertise and performance in the roles.	Performance incentives are directed to achieving demanding growth targets. TFR + STI is intended to be positioned competitively when compared to groups of similar companies.	LTI is intended to align executive KMP with the Company's long-term growth strategy and shareholders' interests.	
↕	↕	↕	
Total remuneration is intended to be positioned competitively when compared to relevant market and internal relativities			

3.2 Target remuneration mix

The remuneration mix for each executive KMP is weighted to provide an appropriate balance between fixed and at-risk performance-based remuneration to ensure focus on short, medium and longer term performance. The Board considers that this approach aligns Executive KMP remuneration with shareholders' interests and expectations.

CEO&P Remuneration Mix¹

					Total (\$'000)
Minimum	100%				620
Target	48%	12%	12%	28%	1,280
Outperformance	43%	16%	16%	25%	1,430

Other Executive KMP Remuneration Mix (Average)¹

					Total (\$'000)
Minimum	100%				402
Target	64%	9%	9%	18%	629
Outperformance	59%	12%	12%	17%	685

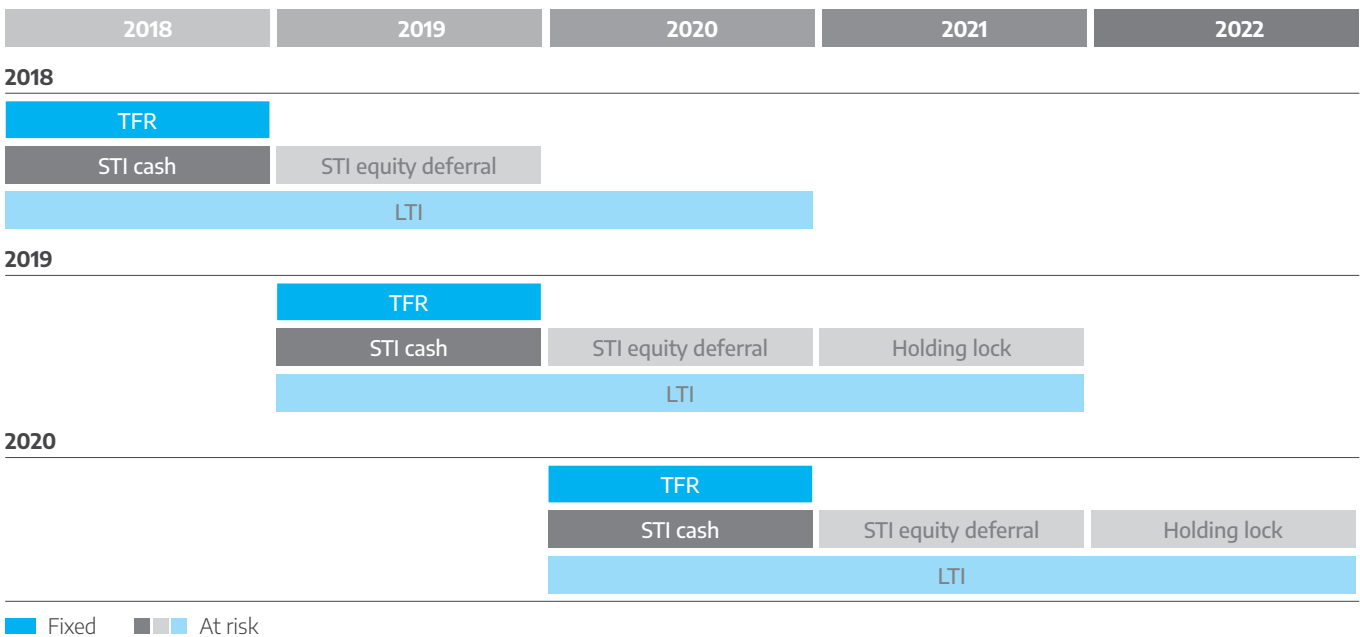
■ TFR ■ Cash STI ■ Deferred STI ■ LTI

1. Based on FY19 remuneration details.

Remuneration report – audited

3.3 Remuneration – timing of receipt of the benefit

The three complementary components of executive KMP remuneration are ‘earned’ over multiple time ranges, as illustrated below.



Each year, fixed remuneration and benefits are paid monthly. A Short-Term Incentive is awarded annually based on the achievement of annual performance targets with 50% of any STI earned paid up-front in cash and 50% paid as performance rights which are deferred for one year (except for the CEO’s 2018 performance rights of which 50% were deferred for one year and the other 50% were deferred for two years). Effective from the 2019 STI, the resulting shares must then be held as restricted shares for a further year (prior to 2019, the resulting shares were not subject to any restrictions). Each year, an equity Long-Term Incentive is awarded to executive KMP which vests after a three-year measurement period, if the specified conditions are satisfied.

3.4 Fixed Remuneration

Total Fixed Remuneration (TFR) comprises base salary and superannuation. In addition to base salary, executives may receive benefits in line with local practice, such as health insurance and a car allowance.

Executive KMP TFR is tested regularly for market competitiveness by reference to appropriate independent and externally sourced comparable benchmark information. Usually, TFR adjustments are only made in response to individual performance, an increase in job role, changing market circumstances or promotion. Any adjustment to executive KMP remuneration is approved by the Board, based on recommendations by the Remuneration & People Committee and the CEO&P.

3.5 Short-Term Incentive

Purpose To reward executives for the achievement against annual performance objectives set by the Board at the beginning of the performance period.

Performance conditions/measures The STI is dependent on meeting Company and Individual Performance Objectives as shown below.

Company Performance Objectives	×	Individual Performance Objectives	×	Target STI %	×	Base salary	=	STI
4 weighted Objectives reviewed and set by the Board annually								Min 0% Max 150%
		Payout						
Threshold	50%	Did not achieve		0%				
Target	100%	Achieved some		1%-50%				
Maximum	120%	Achieved most		51%-90%				
		Over achieved some		91%-110%				
		Over achieved most		110%-125%				

The Board has a general right to exercise discretion in relation to the satisfaction of the performance conditions.

Opportunity CEO&P target opportunity is 50% of base salary with a maximum opportunity of 75% of base salary for outperformance. Other Executive KMP target opportunity is 30% of base salary with a maximum opportunity of 45% of base salary for outperformance.

Delivery	<p>The STI is delivered as follows:</p> <ul style="list-style-type: none"> – 50% of STI paid in cash; and – 50% of STI awarded as performance rights. <p>After one year, the performance rights vest and are automatically exercised and then held in a holding lock as restricted shares for a further year.</p>
Allocation method	The equity component will be determined based on the volume weighted average price of Nanosonics' shares during the five days prior to and including the date of the announcement of the Company's 2019 full year results and the five days following the announcement of those results.
Dividends	Performance rights do not carry any dividend or voting rights prior to exercise.
Service condition	Because the STI amount awarded as equity has already been earned, there are no further performance requirements attached to the performance rights. However, they are subject to service conditions until the vesting date.

3.6 Long-Term Incentive

Purpose	To align a significant portion of executives' overall remuneration opportunity with shareholder value over the longer term and provide a stimulus for the retention of executives within the Company.
Opportunity	CEO&P maximum opportunity is 60% of base salary. Other Executive KMP maximum opportunity is 30% of base salary.
Timing and delivery	<p>Grants are made each year after shareholder approval to issue securities to Directors has been obtained at the relevant AGM.</p> <p>The LTI is delivered in the form of performance rights and options. A minimum of 20% of the LTI opportunity must be taken as performance rights and a minimum of 20% of the LTI opportunity must be taken as options. Each executive is able to elect the take the remaining 60% of the LTI opportunity as either performance rights or options.</p>
Allocation method	<p>The target LTI \$ value for each executive, once determined, is then converted into a number of performance rights and options based on a valuation/methodology determined by an independent consultant at the commencement of the performance period using the volume weighted average price (VWAP) of Nanosonics shares for a month from and including the date of the announcement of the Company's full year results, as follows:</p> <ul style="list-style-type: none"> – Performance Rights allocated = LTI \$ value / Black Scholes value; and – Options allocated = LTI \$ value / Binomial Approximation Option Pricing value.
Performance conditions/ measures	<p>Equity grants to the Executive KMP are subject to performance conditions.</p> <p>Each year the Board considers the most appropriate performance measure to use in order to align executives' incentives with shareholders' expectations, taking into account the changing circumstances of the Company. For the 2018 LTI, the Board formed the view that share price growth will be primarily influenced by the continued expansion of the Company's installed base, successful geographical expansion into new markets and its ability to develop and launch new products in the infection prevention market. Accordingly, an Absolute Compound Annual Growth Rate of Total Shareholder Return (Absolute CAGR TSR) hurdle was used with targets set by the Board, with an appropriate profit before tax gate (PBT Gate) as set out in section 3.6.1.</p> <p>The Absolute CAGR TSR for the 2018 LTI will be calculated based on the VWAP of the shares in the Company a month from and including the date of the release of the Company's 30 June 2018 results compared to the VWAP of the shares in the Company in the month from (and including) the date of the announcement of the Company's FY21 full year results.</p> <p>A summary of the components of the performance measures associated with the 2018, 2017, and 2016 LTI awards is set out below.</p>

LTI year	Performance measure				Total
	Absolute CAGR TSR	TSR-1	TSR-2	EPS	
2018	100%	—	—	—	100%
2017	—	50%	50%	—	100%
2016	—	25%	25%	50%	100%

Further detail of the each of the performance measures is provided in sections 3.6.1 to 3.6.4.

Equity grants are tested against the performance measures set. If the performance hurdles are not met at the vesting date, performance rights and options lapse.

The Board has a general right to exercise discretion in relation to the satisfaction of the performance conditions.

Remuneration report – audited

Performance measurement period	The performance measurement periods for the 2018, 2017 and 2016 Long-Term Incentive awards are summarised below.								
	<table border="1"> <thead> <tr> <th>LTI year</th> <th>Measurement Period</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>20 August 2018 to the date of the release of Nanosonics' FY21 financial statements.</td> </tr> <tr> <td>2017</td> <td>24 August 2017 to the date of the release of Nanosonics' FY20 financial statements.</td> </tr> <tr> <td>2016</td> <td>17 August 2016 to the date of the release of Nanosonics' FY19 financial statements.</td> </tr> </tbody> </table>	LTI year	Measurement Period	2018	20 August 2018 to the date of the release of Nanosonics' FY21 financial statements.	2017	24 August 2017 to the date of the release of Nanosonics' FY20 financial statements.	2016	17 August 2016 to the date of the release of Nanosonics' FY19 financial statements.
LTI year	Measurement Period								
2018	20 August 2018 to the date of the release of Nanosonics' FY21 financial statements.								
2017	24 August 2017 to the date of the release of Nanosonics' FY20 financial statements.								
2016	17 August 2016 to the date of the release of Nanosonics' FY19 financial statements.								
Dividends	Performance rights and options do not carry any dividend or voting rights prior to exercise.								
Service condition	In addition to the performance conditions, performance rights and options will only vest if the Executive KMP remains in continuous employment with Nanosonics in their current or equivalent position from the date of the grant to the respective vesting date of each grant.								

3.6.1 Absolute CAGR Total Shareholder Return

For the 2018 LTIS the Board has set a PBT Gate. An assessment will be made at the end of the measurement period and if the average PBT of the Company for the three financial years of the measurement period is greater than the PBT of the Company in the financial year ending 30 June 2018, the gate will open. If the PBT Gate does not open, the performance condition will be deemed to have not been met, regardless of the Company's performance against the Absolute CAGR TSR set out below.

The purpose of the PBT Gate (calculated based on an average PBT over the three year measurement period) is to ensure that there is a baseline requirement to generate PBT over the measurement period, which takes into account additional investment in research and development and new product launch activity in a given year of the measurement period.

Vesting of performance rights and options, subject to the Absolute CAGR TSR performance measure, is in the proportions summarised below.

Absolute CAGR TSR of the Company	Proportion of performance rights and options to vest
Does not reach 10%	0%
Reaches 10% but does not reach 20%	50% to 100%
Reaches or exceeds 20%	100%

Straight line interpolation applies to the incremental results.

3.6.2 Relative Total Shareholder Return hurdle (TSR-1 and TSR-2)

For each of the 2017 and 2016 LTI awards, Two Relative Total Shareholder Return measures have been used (TSR-1 and TSR-2). The performance rights and options granted that are subject to the TSR-1 and TSR-2 hurdles will vest subject to Nanosonics' relative TSR performance against the companies within the relevant TSR Comparator Groups over the performance measurement period. Details of the TSR Comparator Groups are set out in Section 3.6.4.

Vesting of performance rights and options, subject to Relative TSR Performance measure, is in the proportions summarised below.

TSR vs Comparator Groups 1 and 2	Proportion of performance rights and options to vest
Below the 50th percentile	0%
50th to 75th percentile	30% to 100% (pro-rata)
At the 75th Percentile	100%

Straight line interpolation applies to the incremental results.

3.6.3 Earnings Per Share hurdle (EPS)

The performance rights and options granted that are subject to an EPS hurdle will vest if Nanosonics achieves a target pre-tax Earnings Per Share (Pre-tax EPS), as pre-determined by the Board. For the 2016 LTI, the relevant year for determining achievement of the Pre-tax EPS hurdle is the financial year ending on 30 June 2019.

Vesting of the performance rights and options, subject to achieving the Pre-tax EPS hurdle, is in the proportions summarised below.

Achievement of Pre-tax EPS target	Proportion of performance rights and options to vest
Below 75% of target Pre-tax EPS	0%
75% to 100% of target Pre-tax EPS	75% to 100% (pro-rata)
Above 100% of target Pre-tax EPS	100%

Straight line interpolation applies to the incremental results.

3.6.4 Relative Total Shareholder Return Comparator Groups

The Comparator Groups of companies that have been used in respect of the 2017 and 2016 LTI awards are summarised below.

2017 LTI

2017 Comparator Group 1 (TSR-1)

ANN	Ansell Limited	IDX	Integral Diagnostics Limited	PSQ	Pacific Smiles Group Limited
API	Australian Pharmaceutical Industries Limited	IPD	ImpediMed Limited	PRY	Primary Health Care Limited
AXP	AirXpanders, Inc.	JHC	Japara Healthcare Limited	REG	Regis Healthcare Limited
CAJ	Capitol Health Limited	LHC	LifeHealthcare Group Limited	RHC	Ramsay Health Care Limited
CGS	CogState Limited	NVC	National Veterinary Care Limited	RVA	REVA Medical, Inc.
COH	Cochlear Limited	ONE	Oneview Healthcare plc	SIG	Sigma Healthcare Limited
EHE	Estia Health Limited	ONT	1300SMILES Limited	SHL	Sonic Healthcare Limited
ELX	Ellex Medical Lasers Limited	OSP	Osprey Medical Inc.	SOM	SomnoMed Limited
GMV	G Medical Innovations Holdings Limited	PGC	Paragon Care Limited	VRT	Virtus Health Limited
HSO	Healthscope Limited	PME	Pro Medicus Limited		

2017 LTI Comparator Group 2 (TSR-2)

ACX	Aconex Limited	IFM	Infomedia Limited	PRY	Primary Health Care Limited
APT	Afterpay Touch Group Limited	IRE	IRESS Limited	REG	Regis Healthcare Limited
APX	Appen Limited	ISD	iSentia Group Limited	SIG	Sigma Pharmaceuticals Limited
ALU	Altium Limited	JHC	Japara Healthcare Limited	SRX	Sirtex Medical Limited
API	Australian Pharmaceutical Industries Limited	MYX	Mayne Pharma Group Limited	SPL	Starpharma Holdings Limited
CL1	Class Limited	MSB	Mesoblast Limited	TNE	Technology One Limited
EHE	Estia Health Limited	MVF	Monash IVF Group Limited	VRT	Virtus Health Limited
GBT	GBST Holdings Limited	MYO	MYOB Group Limited	WTC	Wisetech Global Limited
HSN	Hansen Technologies Limited	NTC	Netcomm Wireless Limited	XRO	Xero Limited
IPD	Impedimed Limited	NXT	Nextdc Limited		

2016 LTI

2016 Comparator Group 1 (TSR-1)

ACG	AtCor Medical Holdings Limited	ELX	Ellex Medical Lasers Limited	RHT	Resonance Health Limited
AHZ	Admedus Limited	FPH	Fisher & Paykel Healthcare Corporation	RMD	ResMed Inc.
ALT	Analytica Limited	GID	GI Dynamics, Inc.	RSH	Respiri Limited
AMT	Allegra Orthopaedics Limited	IMI	IM Medical Limited	RVA	REVA Medical, Inc.
ANN	Ansell Limited	IPD	ImpediMed Limited	SDI	SDI Limited
AXP	AirXpanders, Inc.	ITD	ITL Health Group Limited	SOM	SomnoMed Limited
AZV	Azure Healthcare Limited	LBT	LBT Innovations Limited	TSX:SV	Simavita Limited
CLV	Clover Corporation Limited	M7T	Mach7 Technologies Limited	UBI	Universal Biosensors Inc.
CMP	Compumedics Limited	MGZ	Medigard Limited	UCM	Uscom Limited
COH	Cochlear Limited	MLA	Medical Australia Limited	UNS	Unilife Corporation
CYC	Cyclopharm Limited	OIL	Optiscan Imaging Limited		
DXB	Dimerix Limited	OSP	Osprey Medical Inc.		

2016 LTI Comparator Group 2 (TSR-2)

ACX	Aconex Limited	IPD	Impedimed Limited	NTC	Netcomm Wireless Limited
ALU	Altium Limited	IFM	Infomedia Limited	NXT	Nextdc Limited
API	Australian Pharmaceutical Industries Limited	IRE	IRESS Limited	REG	Regis Healthcare Limited
CL1	Class Limited	ISD	iSentia Group Limited	SIG	Sigma Pharmaceuticals Limited
CSV	CSG Limited	JHC	Japara Healthcare Limited	SPL	Starpharma Holdings Limited
EHE	Estia Health Limited	MYX	Mayne Pharma Group Limited	TNE	Technology One Limited
FPH	Fisher & Paykel Healthcare Corp Limited	MSB	Mesoblast Limited	VRT	Virtus Health Limited
GBT	GBST Holdings Limited	MVF	Monash IVF Group Limited	WTC	Wisetech Global Limited
HSN	Hansen Technologies Limited	MYO	MYOB Group Limited		

Remuneration report – audited

4.0 EXECUTIVE REMUNERATION OUTCOMES

4.1 Relationship between Nanosonics' performance and Executive KMP remuneration

Nanosonics' remuneration framework is explained in section 3.1 and is aimed at rewarding executive KMP to achieve sustainable growth of the business and creation of shareholder value in the short, medium and long-term. The table below summarises the financial performance of the Company for FY15 – FY19 which is compared with short-term and long-term remuneration outcomes.

Five-year performance history	2019	2018	2017	2016	2015
Earnings and cash flows					
Revenue (\$'000)	84,324	60,698	67,507	42,796	22,214
Profit/(loss) before tax (\$'000)	16,830	5,583	13,852	136	(5,465)
Net profit/(loss) after tax (\$'000)	13,602	5,751	26,158	122	(5,460)
Pre-tax basic earnings (loss) (Pre-tax EPS) (cents)	5.61	1.87	4.66	0.05	(2.03)
Basic earnings (loss) per share (EPS) (cents)	4.54	1.92	8.79	0.04	(2.03)
Free cash flow (\$'000)	2,625	6,196	15,143	1,943	(4,732)
Returns					
Share price as at 30 June (\$)	5.62	3.16	2.54	2.19	1.70
Relative TSR percentile ranking	tbd ^{1,2}	94th/95th ³	85th/78th ⁴	91st ⁵	n/a ⁶
3-year Absolute CAGR TSR % ⁷	36.9	23.0	47.6	54.0	49.4
STI award outcomes					
Executive KMP outcome (% of \$ target)	80.3	63.1	87.4	98.3	100.0
LTI outcomes					
LTI vesting %	tbd	100.0	100.0	100.0	— ⁸
LTI forfeit %	tbd	—	—	—	100.0 ⁸

1. To be determined.

2. Relates to the 2016 LTI, the vesting of which will be finally determined following the release of the FY19 financial results. Refer to Section 4.5 for additional information.

3. Relates to the 2015 LTI. Nanosonics was ranked in the 94th percentile of Comparator Group 1 and the 95th percentile of Comparator Group 2.

4. Relates to the 2013 LTI. Nanosonics was ranked in the 85th percentile in respect of the award made to the CEO&P and in the 78th percentile in respect of the award made to Other Executive KMP.

5. Relates to the 2012 LTI.

6. Not applicable.

7. 3-Year CAGR TSR shown for the 5 year performance period was calculated using the 30 June closing share price.

8. Relates to the 2012 LTI which was based on a revenue and a profit hurdle and did not vest.

4.2 Executive KMP remuneration received in FY19 – unaudited

The figures in this table are different to the statutory disclosures in section 5, which are prepared in accordance with the accounting standards and therefore include the accounting value for all unvested deferred STI and LTI awards expensed in the year. The table below is provided voluntarily and represents the value to the Executive KMP of cash paid and vested equity awards (intrinsic value) received during the year.

Executive KMP		Fixed remuneration ¹	Cash STI ²	Deferred STI Vested ³	LTI Vested ⁴	Termination payment	Actual remuneration received during the year
Michael Kavanagh	2019	620,000	116,105	160,206	728,224	—	1,624,535
	2018	530,400	111,961	98,524	1,843,875	—	2,584,760
McGregor Grant	2019	385,000	46,026	62,649	254,524	—	748,199
	2018	351,767	43,782	38,676	177,214	—	611,439
Steven Farrugia	2019	362,632	38,054	47,295	—	—	447,981
	2018	294,311	33,053	—	—	—	327,364
David Morris	2019	175,266	—	—	—	—	175,266
	2018	—	—	—	—	—	—
Rod Lopez	2019	123,050	—	—	—	—	123,050
	2018	—	—	—	—	—	—
Ken Shaw ⁵	2019	474,095	42,818	—	—	—	516,913
	2018	—	—	—	—	—	—
Gerard Putt ⁶	2019	199,428	35,945	44,939	185,375	—	465,687
	2018	276,589	35,341	33,445	146,227	—	491,602
Ron Weinberger ⁷	2019	—	—	—	—	—	—
	2018	224,019	41,309	41,556	247,205	322,845	876,934
Total	2019	2,339,471	278,948	315,089	1,168,123	—	4,101,631
	2018	1,677,086	265,446	212,201	2,414,520	322,845	4,892,098

1. Includes base salary, superannuation/pension and other cash and non-monetary benefits received during the year (excludes annual leave and long service leave accrual).
2. STI received as cash in respect of the previous financial year.
3. Deferred STI vested in FY19 was from the FY17 STI award (FY18 was from the FY16 STI award). The vested value is calculated as the number of vested securities multiplied by the closing share price of Nanosonics ordinary shares on the day of vesting, or if exercised during the period, the 5-day VWAP on the date of exercise.
4. LTI vested represents the value of LTI awards from previous periods that vested wholly or partially during the year. The vested value calculated as the number of vested securities multiplied by the closing share price of Nanosonics ordinary shares on the day of vesting. If the securities that vested during the year were also exercised, the value is based on share price on the date of exercise.
5. Mr Shaw became a KMP from 1 July 2019.
6. Mr Putt ceased being a KMP from 4 March 2019 and his remuneration includes amounts received to this date.
7. Dr Weinberger's employment ended on 20 February 2018 and his remuneration included amounts received to that date. Dr. Weinberger's FY18 STI incentive was forfeited in full on 20 February 2018.

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4.3 FY19 STI outcomes

As explained in Section 3.5, Nanosonics' STI is designed to reward executives for the achievement against annual performance objectives set by the Board at the beginning of the performance period and the payment of an STI is dependent on meeting Company and Individual Performance Objectives. The payout to each executive KMP for the 2019 Financial Year is summarised in the table below.

Executive KMP	Target STI (100%) \$	Company Performance Objectives %	Individual Performance Objective %	STI Achievement		Cash \$	Equity portion deferred \$	Forfeited %
				%	\$			
Michael Kavanagh	299,735	85	100.0	85.00	254,775	127,387	127,388	15.00
McGregor Grant	109,341	85	95.0	80.75	88,293	44,146	44,147	19.25
Steven Farrugia	102,630	85	95.0	80.75	82,874	41,437	41,437	19.25
David Morris ¹	49,500	85	100.0	85.00	42,075	21,038	21,037	15.00
Rod Lopez ²	34,583	85	100.0	85.00	29,396	14,698	14,698	15.00
Ken Shaw	129,088	85	82.5	70.13	90,529	45,265	45,264	29.87
Gerard Putt ³	55,440	85	82.5	70.13	38,880	19,440	19,440	29.87
Total	780,317	85		80.33	626,821	313,411	313,410	19.67

1. Mr Morris joined Nanosonics on 4 February 2019. His target STI is pro-rated from this date.

2. Mr Lopez joined Nanosonics on 4 March 2019. His target STI is pro-rated from this date.

3. Mr Putt ceased being a KMP from 4 March 2019. His target STI is pro-rated up until this date.

The 4 Company Performance Objectives that were set by the Board for the 2019 Financial Year are financial and operational in nature and designed to strengthen alignment between management and shareholder objectives. Details and the weighting of the Company Performance Objectives, which are shared by all employees who participate in the STI program, are summarised below.

- Profit before tax (40% weighting): Requires the Company to achieve a profit before tax, above a threshold;
- Installed base (20% weighting): Requires the Company to achieve an increase in the total installed base of trophon® units, above a threshold;
- Product expansion (20% weighting): Requires the Company to achieve certain clearly defined milestones in relation to the development of new products; and
- Customer experience and culture (20% weighting): Requires the Company to achieve certain objective metrics and complete defined activities that impact customer experience and culture.

Having regard to the achievement and weighting of each of these Objectives, and taking into consideration the overall performance of the Company during the 2019 Financial Year as summarised in the CEO's report and the Regional highlights on pages 6 to 16 of this Annual Report, the Board has assessed the overall achievement of the 2019 Company Objectives at 85%.

In addition to the Company Performance Objectives, each KMP is required to achieve Individual Performance Objectives that are set by the Board. The Individual Performance Objectives are aimed at achieving specific outcomes across a range of areas in areas including profitability, operational effectiveness, risk and compliance management, innovation and new product development, and people and culture.

Mr Kavanagh's individual performance was assessed by the Board having regard to the Company Performance Objectives and the following Individual Performance Objectives:

- Company strategy and risk management;
- Product expansion;
- Investor relations; and
- People, organisation, culture.

4.4 2015 LTI outcome

The performance conditions associated with the 2015 LTI included 2 TSR hurdles that were associated with 2 Comparator Groups, TSR-1 and TSR-2. To achieve 100% vesting, Nanosonics' TSR performance relative to the selected groups of comparator companies was required to be at or above the 75th percentile. Following the release of the Company's 2018 financial statements, Nanosonics' relative TSR ranking was determined to be in the 94th percentile in respect of TSR-1 and in the 95th percentile in respect of TSR-2. Accordingly, 100% of the performance rights granted under the 2015 LTI vested during the 2019 Financial Year.

4.5 2016 LTI outcome

The performance conditions associated with the 2016 LTI included 2 TSR hurdles that were associated with 2 Comparator Groups, TSR-1 and TSR-2, and a Pre-tax EPS hurdle.

To achieve 100% vesting of the 2 TSR hurdles, Nanosonics' TSR performance relative to the selected groups of comparator companies is required to be at or above the 75th percentile. As at 12 August 2019, Nanosonics' relative TSR ranking was estimated to be over the 75th percentile in respect of both TSR-1 and TSR-2 and therefore would result in 100% vesting. A final calculation will be conducted at the end of the measurement period in respect of the TSR-1 and TSR-2 hurdles.

In relation to the Pre-tax EPS hurdle, the Company did not meet the threshold which the Board had set at 6.75 cents per share (which would result in 75% vesting of the performance rights and options associated with the Pre-tax EPS hurdle). However, the Board is conscious that although the Pre-tax EPS hurdle was set in 2016, it subsequently expanded research and development activities beyond those contemplated to support the core trophon® business. Since that time, the Company has applied significant additional investment associated with the research and development of new products. Accordingly, the Board has reviewed the outcome, and after notionally adjusting for the additional research and development expenditure, the Board considers it likely that the Pre-tax EPS hurdle would have been met at the threshold. In view of this, the Board has decided to exercise its discretion to treat the threshold as satisfied, but has adopted a conservative position to allow 50% of the performance rights and options associated with the Pre-tax EPS hurdle to vest, rather than the threshold of 75%.

5.0 STATUTORY DISCLOSURES

5.1 Executive KMP statutory remuneration received – audited (A-IFRS) (\$, except where otherwise indicated)

KMP	Year	Fixed Remuneration				Variable Remuneration					Totals			
		Short-term		Long-term	Post-employment	Total	Short-term	Long-term (Equity Compensation) ¹		Total	At risk	Equity based		
		Salary and fees	Other ²	Accrued leave benefits	Super-annuation/pension contribution ³	Cash STI ⁴	Deferred STI	LTI	Termination Payment	Total Remuneration	%	%		
Michael Kavanagh	2019	578,719	—	73,328	20,531	672,578	127,387	108,500	255,419	491,306	—	1,163,884	42	31
	2018	469,285	—	54,358	20,049	543,692	116,105	112,798	336,210	565,113	—	1,108,805	51	40
McGregor Grant	2019	342,544	—	45,624	20,531	408,699	44,146	37,741	76,747	158,634	—	567,333	28	20
	2018	306,277	—	41,399	20,049	367,725	46,026	50,191	104,353	200,570	—	568,295	35	27
Steven Farrugia ⁵	2019	319,905	—	32,059	20,531	372,495	41,437	33,150	68,260	142,847	—	515,342	26	20
	2018	253,691	—	23,067	20,049	296,807	38,054	35,084	52,186	125,324	—	422,279	30	21
David Morris ⁶	2019	165,001	—	12,587	10,266	187,854	21,038	9,014	56,642	86,694	—	274,548	18	24
	2018	—	—	—	—	—	—	—	—	—	—	—	—	—
Rod Lopez ⁷	2019	115,278	—	8,901	7,772	131,951	14,698	6,296	34,587	55,581	—	187,532	21	22
	2018	—	—	—	—	—	—	—	—	—	—	—	—	—
Ken Shaw ⁸	2019	430,294	28,216	31,838	15,585	505,933	45,265	39,579	68,446	153,290	—	659,223	23	16
	2018	—	—	—	—	—	—	—	—	—	—	—	—	—
Gerard Putt ⁹	2019	161,026	—	20,793	14,629	196,448	19,440	17,810	38,464	75,714	—	272,162	28	21
	2018	241,393	—	30,908	20,049	292,350	35,945	40,953	84,039	160,937	—	453,287	36	28
Ron Weinberger ¹⁰	2019	—	—	—	—	—	—	—	—	—	—	—	—	—
	2018	208,982	—	7,646	15,037	231,665	—	30,420	107,631	138,051	238,000	607,716	23	23
Total	2019	2,112,767	28,216	225,130	109,845	2,475,958	313,411	252,090	598,565	1,164,066	—	3,640,024	32	23
	2018	1,479,628	—	157,378	95,233	1,732,239	236,130	269,446	684,419	1,189,995	238,000	3,160,234	38	30

- The amount disclosed is the amount of the fair value of the performance rights and options recognised as an expense in each reporting period. The ability to exercise the performance rights and options is subject to vesting conditions.
- Other short-term benefits include non-monetary benefit relating to health insurance premium contribution and cash benefit relating to health fund contribution for the US based KMP.
- Post-employment benefits include superannuation contributions for Australian based KMP and IRA Retirement Plan contributions for US based KMP.
- Cash STI is for the performance during the respective financial year. 2019 Amounts represent the Cash STI opportunity accrued related to the financial year based on the achievement of the Company Performance Objectives and Individual Performance Objectives. The actual Cash STI award is disclosed in section 4.3
- Dr Farrugia received a special award of 23,747 performance rights during the year in addition to the 2018 Deferred STI and 2018 LTI. This special award is subject to a 3 year vesting period and is included in the LTI amount.
- Mr. Morris joined Nanosonics on 4 February 2019. He received a sign on incentive of 60,837 performance rights subject to a 3 year vesting period and this is included in the LTI amount.
- Mr Lopez joined Nanosonics on 4 March 2019. He received a sign on incentive of 35,621 performance rights subject to a 3 year vesting period and this is included in the LTI amount.
- Mr Shaw became a KMP from 1 July 2019.
- Mr Putt ceased being a KMP from 4 March 2019 and his remuneration includes amounts to this date.
- Dr Weinberger's employment ended on 20 February 2018 and his remuneration includes amounts to that date. Dr. Weinberger's FY18 STI incentive was forfeited in full on 20 February 2018.

Remuneration report – audited

5.2 Employee Share Scheme grants to KMP

5.2.1 Analysis of share-based payments granted as remuneration

Details of the performance rights and options granted as remuneration to each Executive KMP, including the fair values of each of the grant, the vesting profiles as at 30 June 2019, and any vested and exercisable performance rights and options are set out below.

KMP Description	Grant Date	Vesting Date	Expiry Date	Fair Value \$	Exercise Price \$	Performance Rights						Options				Total Intrinsic value of PR and options at year end (\$)	
						Number granted	Fair Value \$	Number vested during the year	% vested during the year	Number exercised during the year	Balance at year end	Vested and Exercisable	Number granted	Fair Value \$	Balance at year end		Vested and Exercisable
2018 LTIS	9 Nov 18	30 Sep 21	30 Sep 24	1.235		20,900	25,812	—	0	—	20,900	—					117,458
2018 LTIS	9 Nov 18	30 Sep 21	30 Sep 24	0.803	3.442								286,885	230,369	286,885	—	624,836
2018 Deferred STI Tranche 1	9 Nov 18	31 Aug 19	31 Aug 22	3.210		16,502	52,971	—	0	—	16,502	—					92,741
2018 Deferred STI Tranche 2	9 Nov 18	31 Aug 20	31 Aug 23	3.210		16,501	52,968	—	0	—	16,501	—					92,736
2017 LTIS Tranche 1	3 Nov 17	31 Aug 20	31 Aug 23	2.160		12,867	27,793	—	0	—	12,867	—					72,313
2017 LTIS Tranche 2	3 Nov 17	31 Aug 20	31 Aug 23	2.040		12,866	26,247	—	0	—	12,866	—					72,307
2017 LTIS Tranche 1	3 Nov 17	31 Aug 20	31 Aug 23	1.000	2.380								170,212	170,212	170,212	—	551,487
2017 LTIS Tranche 2	3 Nov 17	31 Aug 20	31 Aug 23	1.020	2.380								170,212	173,616	170,212	—	551,487
2017 Deferred STI	3 Nov 17	31 Aug 18	31 Aug 21	2.810		45,513	127,891	45,513	100	—	45,513	45,513					255,783
2016 LTIS Tranche 1	5 Jan 17	31 Aug 19	31 Aug 22	2.590	—	10,535	27,286	—	0	—	10,535	—					59,207
2016 LTIS Tranche 2	5 Jan 17	31 Aug 19	31 Aug 22	2.330	—	10,534	24,544	—	0	—	10,534	—					59,201
2016 LTIS Tranche 3	5 Jan 17	31 Aug 19	31 Aug 22	3.070	—	21,069	64,682	—	0	—	21,069	—					118,408
2016 LTIS Tranche 1	5 Jan 17	31 Aug 19	31 Aug 22	1.000	2.850	—	—	—	—	—	—	52,827	52,827	52,827	—	—	146,331
2016 LTIS Tranche 2	5 Jan 17	31 Aug 19	31 Aug 22	0.980	2.850	—	—	—	—	—	—	52,826	51,769	52,826	—	—	146,328
2016 LTIS Tranche 3	5 Jan 17	31 Aug 19	31 Aug 22	1.050	2.850	—	—	—	—	—	—	105,653	110,936	105,653	—	—	292,659
2015 LTIS Tranche 1 ¹	4 Jan 16	31 Aug 18	31 Aug 21	1.460	—	103,441	151,024	103,441	100	—	103,441	103,441					581,338
2015 LTIS Tranche 2 ¹	4 Jan 16	31 Aug 18	31 Aug 21	1.060	—	103,441	109,647	103,441	100	—	103,441	103,441					581,338
Total						374,169	690,865	252,395	67	—	374,169	252,395	838,615	789,729	838,615	—	4,415,958
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	1.410		6,354	8,959	—	0	—	6,354	—					35,709
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	0.863	3.442								87,211	75,263	87,211	—	189,946
2018 Deferred STI	22 Nov 18	31 Aug 19	31 Aug 22	2.970		13,083	38,857	—	0	—	13,083	—					73,526
2017 LTIS Tranche 1	9 Feb 18	31 Aug 20	31 Aug 23	1.950		8,363	16,308	—	0	—	8,363	—					47,000
2017 LTIS Tranche 2	9 Feb 18	31 Aug 20	31 Aug 23	1.750		8,363	14,635	—	0	—	8,363	—					47,000
2017 LTIS Tranche 1	9 Feb 18	31 Aug 20	31 Aug 23	0.840	2.380								41,488	34,850	41,488	—	134,421
2017 LTIS Tranche 2	9 Feb 18	31 Aug 20	31 Aug 23	0.790	2.380								41,488	32,776	41,488	—	134,421
2017 Deferred STI	11 Jan 18	31 Aug 18	31 Aug 21	2.750		17,798	48,945	17,798	100	—	17,798	17,798					100,025
2016 LTIS Tranche 1	5 Jan 17	31 Aug 19	31 Aug 22	2.590	—	2,568	6,651	—	0	—	2,568	—					14,432
2016 LTIS Tranche 2	5 Jan 17	31 Aug 19	31 Aug 22	2.330	—	2,567	5,981	—	0	—	2,567	—					14,427
2016 LTIS Tranche 3	5 Jan 17	31 Aug 19	31 Aug 22	3.070	—	5,135	15,764	—	0	—	5,135	—					28,859
2016 LTIS Tranche 1	5 Jan 17	31 Aug 19	31 Aug 22	1.000	2.850	—	—	—	—	—	—	20,028	20,028	20,028	—	—	55,478
2016 LTIS Tranche 2	5 Jan 17	31 Aug 19	31 Aug 22	0.980	2.850	—	—	—	—	—	—	20,028	19,627	20,028	—	—	55,478
2016 LTIS Tranche 3	5 Jan 17	31 Aug 19	31 Aug 22	1.050	2.850	—	—	—	—	—	—	40,056	42,059	40,056	—	—	110,955
2015 LTIS Tranche 1 ¹	4 Jan 16	31 Aug 18	31 Aug 21	1.460	—	36,154	52,785	36,154	100	—	36,154	36,154					203,185
2015 LTIS Tranche 2 ¹	4 Jan 16	31 Aug 18	31 Aug 21	1.060	—	36,154	38,323	36,154	100	—	36,154	36,154					203,185
Total						136,539	247,208	90,106	66	—	136,539	90,106	250,299	224,603	250,299	—	1,448,047
2019 Special ²	28 May 19	04 Mar 22	04 Mar 25	4.410	—	23,747	104,724	—	0	—	23,747	—					133,458
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	1.41		11,836	16,689	—	0	—	11,836	—					66,518
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	0.86	3.442								60,922	52,576	60,922	—	132,688
2018 Deferred STI	22 Nov 18	31 Aug 19	31 Aug 22	2.97		10,817	32,126	—	0	—	10,817	—					60,792
2017 LTIS Tranche 1	9 Feb 18	31 Aug 20	31 Aug 23	1.95		6,686	13,037	—	0	—	6,686	—					37,575
2017 LTIS Tranche 2	9 Feb 18	31 Aug 20	31 Aug 23	1.75		6,686	11,701	—	0	—	6,686	—					37,575
2017 LTIS Tranche 1	9 Feb 18	31 Aug 20	31 Aug 23	0.84	2.380								33,169	27,862	33,169	—	107,468
2017 LTIS Tranche 2	9 Feb 18	31 Aug 20	31 Aug 23	0.79	2.380								33,168	26,203	33,168	—	107,464
2017 Deferred STI	11 Jan 18	31 Aug 18	31 Aug 21	2.75		13,436	36,949	13,436	100	—	13,436	13,436					75,510
2016 LTIS Tranche 1	5 Jan 17	31 Aug 19	31 Aug 22	2.59	—	1,369	3,546	—	0	—	1,369	—					7,694
2016 LTIS Tranche 2	5 Jan 17	31 Aug 19	31 Aug 22	2.33	—	1,368	3,187	—	0	—	1,368	—					7,688
2016 LTIS Tranche 3	5 Jan 17	31 Aug 19	31 Aug 22	3.07	—	2,737	8,403	—	0	—	2,737	—					15,382
2016 LTIS Tranche 1	5 Jan 17	31 Aug 19	31 Aug 22	1.00	2.850	—	—	—	—	—	—	18,299	18,299	18,299	—	—	50,688
2016 LTIS Tranche 2	5 Jan 17	31 Aug 19	31 Aug 22	0.98	2.850	—	—	—	—	—	—	18,299	17,933	18,299	—	—	50,688
2016 LTIS Tranche 3	5 Jan 17	31 Aug 19	31 Aug 22	1.05	2.850	—	—	—	—	—	—	36,599	38,429	36,599	—	—	101,379
Total						78,682	230,362	13,436	17	—	78,682	13,436	200,456	181,302	200,456	—	992,567

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KMP Description	Grant Date	Vesting Date	Expiry Date	Fair Value \$	Exercise Price \$	Performance Rights					Options				Total Intrinsic value of PR and options at year end (\$)		
						Number granted	Fair Value \$	Number vested during the year	% vested during the year	Number exercised during the year	Balance at year end	Vested and Exercisable	Number granted	Fair Value \$		Balance at year end	Vested and Exercisable
David Morris³																	
2019 Special ³	28 May 19	04 Feb 22	04 Feb 25	4,410	—	60,837	268,291	—	0	—	60,837	—	—	—	—	—	341,904
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	1.41	—	5,910	8,333	—	0	—	5,910	—	—	—	—	—	33,214
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	0.86	3,442	—	—	—	—	—	—	81,116	70,003	81,116	—	—	176,671
Total						66,747	276,624	—	0	—	66,747	81,116	70,003	81,116	—	—	551,789
Rod Lopez⁴																	
2019 Special ⁴	28 May 19	04 Mar 22	04 Mar 25	4,410	—	35,621	157,089	—	0	—	35,621	—	—	—	—	—	200,190
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	1.41	—	5,015	7,071	—	0	—	5,015	—	—	—	—	—	28,184
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	0.86	3,442	—	—	—	—	—	—	68,835	59,405	68,835	—	—	149,923
Total						40,636	164,160	—	0	—	40,636	68,835	59,405	68,835	—	—	378,297
Ken Shaw⁵																	
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	1.410	—	7,412	10,451	—	0	—	7,412	—	—	—	—	—	41,655
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	0.863	3,442	—	—	—	—	—	—	101,742	87,803	101,742	—	—	221,594
2018 Deferred STI	22 Nov 18	31 Aug 19	31 Aug 22	2,970	—	11,337	33,671	—	0	—	11,337	—	—	—	—	—	63,714
2017 LTIS Tranche 1	9 Feb 18	31 Aug 20	31 Aug 23	1,950	—	4,761	9,284	—	0	—	4,761	—	—	—	—	—	26,757
2017 LTIS Tranche 2	9 Feb 18	31 Aug 20	31 Aug 23	1,750	—	4,760	8,330	—	0	—	4,760	—	—	—	—	—	26,751
2017 LTIS Tranche 1	9 Feb 18	31 Aug 20	31 Aug 23	0.840	2,380	—	—	—	—	—	—	62,975	52,899	62,975	—	—	204,039
2017 LTIS Tranche 2	9 Feb 18	31 Aug 20	31 Aug 23	0.790	2,380	—	—	—	—	—	—	62,974	49,749	62,974	—	—	204,036
Total						28,270	61,736	—	0	—	28,270	227,691	190,451	227,691	—	—	788,546
Gerard Putt⁶																	
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	1.410	—	9,213	12,990	—	0	—	9,213	—	—	—	—	—	51,777
2018 LTIS	4 Feb 19	30 Sep 21	30 Sep 24	0.863	3,442	—	—	—	—	—	—	47,421	40,924	47,421	—	—	103,283
2018 Deferred STI	22 Nov 18	31 Aug 19	31 Aug 22	2,970	—	10,218	30,347	—	0	—	10,218	—	—	—	—	—	57,425
2017 LTIS Tranche 1	9 Feb 18	31 Aug 20	31 Aug 23	1,950	—	8,631	16,830	—	0	—	8,631	—	—	—	—	—	48,506
2017 LTIS Tranche 2	9 Feb 18	31 Aug 20	31 Aug 23	1,750	—	8,630	15,103	—	0	—	8,630	—	—	—	—	—	48,501
2017 LTIS Tranche 1	9 Feb 18	31 Aug 20	31 Aug 23	0.840	2,380	—	—	—	0	—	—	28,544	23,977	28,544	—	—	92,483
2017 LTIS Tranche 2	9 Feb 18	31 Aug 20	31 Aug 23	0.790	2,380	—	—	—	0	—	—	28,543	22,549	28,543	—	—	92,479
2017 Deferred STI	11 Jan 18	31 Aug 18	31 Aug 21	2,750	—	14,367	39,509	14,367	100	14,367	—	—	—	—	—	—	—
2016 LTIS Tranche 1	5 Jan 17	31 Aug 19	31 Aug 22	2,590	—	2,043	5,292	—	0	—	2,043	—	—	—	—	—	11,482
2016 LTIS Tranche 2	5 Jan 17	31 Aug 19	31 Aug 22	2,330	—	2,043	4,760	—	0	—	2,043	—	—	—	—	—	11,482
2016 LTIS Tranche 3	5 Jan 17	31 Aug 19	31 Aug 22	3,070	—	4,087	12,547	—	0	—	4,087	—	—	—	—	—	22,969
2016 LTIS Tranche 1	5 Jan 17	31 Aug 19	31 Aug 22	1,000	2,850	—	—	—	—	—	—	15,937	15,937	15,937	—	—	44,145
2016 LTIS Tranche 2	5 Jan 17	31 Aug 19	31 Aug 22	0,980	2,850	—	—	—	—	—	—	15,937	15,618	15,937	—	—	44,145
2016 LTIS Tranche 3	5 Jan 17	31 Aug 19	31 Aug 22	1,050	2,850	—	—	—	—	—	—	31,875	33,469	31,875	—	—	88,294
2015 LTIS Tranche 1 ¹	4 Jan 16	31 Aug 18	31 Aug 21	1,460	—	29,632	43,263	29,632	100	29,632	—	—	—	—	—	—	—
2015 LTIS Tranche 2 ¹	4 Jan 16	31 Aug 18	31 Aug 21	1,060	—	29,633	31,411	29,633	100	29,633	—	—	—	—	—	—	—
Total						118,497	212,052	73,632	62	73,632	44,865	168,257	152,474	168,257	—	—	716,971

- The performance conditions associated with the 2015 LTIS were fully met. Accordingly, these performance rights vested on 31 August 2018. The expiry date on the 2015 LTI changed from 30 August 2018 to 31 August 2021 following shareholder's approval at the Annual General Meeting held on 3 November 2017.
- Dr Farrugia received a special award of 23,747 performance rights during the year.
- Mr Morris joined Nanosonics on 4 February 2019. He received a sign on incentive 60,837 performance rights, subject to a 3 year vesting period.
- Mr Lopez joined Nanosonics on 4 March 2019. He received a sign on incentive reported under 2019 Special of 35,621 performance rights, subject to a 3 year vesting period.
- Mr Shaw became a KMP from 1 July 2019. The performance rights and options granted included the 2017 LTI which was granted to him prior to this date.
- Mr Putt ceased being a KMP from 4 March 2019. Accordingly, details of the performance rights and options granted are reported to 4 March 2019.

No performance rights or options vest if the conditions are not satisfied, hence the minimum value is nil. The maximum value of the grants to be expensed has been determined as the fair value of the awards at grant date (as disclosed above).

The factors and assumptions used in determining the fair value on grant date of performance rights and options granted to Directors and KMP which were unexpired on 30 June 2019, including those granted during the period are disclosed in note 4.3(iv) to the Financial Statements.

There were no performance rights or options forfeited or lapsed during the period. There were no options vested and exercised during the period. There were no vested and exercisable options at year end. No share-based payments were settled in cash.

Remuneration report – audited

5.2.2 Exercise of performance rights and options granted as remuneration

During the financial year, the following shares were issued on the exercise of performance rights previously granted as part of remuneration to KMP:

	Number of shares	Amount paid per share (\$)	Total amount paid (\$)	Intrinsic value ¹ (\$)
Gerard Putt	73,632	—	—	230,314
Total	73,632	—	—	230,314

1. The intrinsic value of the shares is calculated as the 5-day volume weighted average price of the shares on the ASX on the day of exercise of performance rights and options less amount paid per share if there is an exercise price.

There are no amounts unpaid on the shares issued as a result of the exercise of options in the current financial year or in prior years. There were no options exercised during the year.

5.2.3 Analysis of movement in performance rights and options

The movement in number and value during the financial year of performance rights and options over ordinary shares of Nanosonics Limited held by KMP is detailed below.

	Balance at start of the year		Granted in the year		Exercised in the year		Forfeited in the year		Balance at end of the year	
	Number	Value (\$) ¹	Number	Value (\$) ¹	Number	Value (\$) ²	Number	Value (\$) ²	Number	Value (\$) ¹
Performance rights										
Michael Kavanagh	320,266	559,114	53,903	131,751	—	—	—	—	374,169	690,865
McGregor Grant	117,102	199,392	19,437	47,816	—	—	—	—	136,539	247,208
Steven Farrugia	32,282	76,823	46,400	153,539	—	—	—	—	78,682	230,362
David Morris	—	—	66,747	276,624	—	—	—	—	66,747	276,624
Rod Lopez	—	—	40,636	164,160	—	—	—	—	40,636	164,160
Ken Shaw ³	9,521	17,614	18,749	44,122	—	—	—	—	28,270	61,736
Gerard Putt ⁴	99,066	168,715	19,431	43,337	73,632	230,314	—	—	44,865	97,869
Total	578,237	1,021,658	265,303	861,349	73,632	230,314	—	—	769,908	1,768,824
Options										
Michael Kavanagh	551,730	559,360	286,885	230,369	—	—	—	—	838,615	789,729
McGregor Grant	163,088	149,340	87,211	75,263	—	—	—	—	250,299	224,603
Steven Farrugia	139,534	128,726	60,922	52,576	—	—	—	—	200,456	181,302
David Morris	—	—	81,116	70,003	—	—	—	—	81,116	70,003
Rod Lopez	—	—	68,835	59,405	—	—	—	—	68,835	59,405
Ken Shaw ³	125,949	102,648	101,742	87,803	—	—	—	—	227,691	190,451
Gerard Putt ⁴	120,836	111,550	47,421	40,924	—	—	—	—	168,257	152,474
Total	1,101,137	1,051,624	734,132	616,343	—	—	—	—	1,835,269	1,667,967

1. The value of the performance rights and options granted in the year is the fair value of the performance rights and options calculated at grant date and derived by applying the valuation methodology prescribed under IFRS-2. The total value of performance rights and options granted is included in the table above. This amount is allocated to remuneration over the vesting period.

2. The value of the performance rights exercised is based on the 5-day volume weighted average price of the shares on the ASX on the date of exercise.

3. Mr. Ken Shaw became a KMP from 1 July 2019. The performance rights and options balance at the start of the year relates to the 2017 LTI which was granted to him prior to this date.

4. Mr. Putt ceased being a KMP from 4 March 2019. Accordingly, details of the performance rights and options granted, exercised and forfeited are reported to 4 March 2019.

Remuneration report – audited

5.3 KMP equity interests

In accordance with the Corporations Act (section 205G (1)), Nanosonics is required to notify the interests (shares and rights to shares) of Directors to the ASX. In the interests of transparency and completeness of disclosure, this information has been provided for each Director (as required under the Corporations Act) and all Other Executive KMP.

Equity interests as at 30 June 2019 and to the date of this report	Nanosonics Limited ordinary shares ¹	Performance rights and options over Nanosonics Limited ordinary shares	Total Intrinsic Value of NAN securities as at year end (\$) ^{2/3}
Non-executive Directors			
Maurie Stang	19,006,517 ⁴	—	106,816,626
Richard England	13,000	—	73,060
David Fisher	413,940	—	2,326,343
Steven Sargent	107,000	—	601,340
Marie McDonald	19,600	—	110,152
Geoff Wilson ⁵	—	—	—
Executive Director			
Michael Kavanagh	1,018,363	1,212,784	7,203,794
Other Executive KMP			
McGregor Grant	587,372	386,838	3,772,842
Steven Farrugia	—	279,138	411,664
David Morris	—	147,863	346,627
Rod Lopez	—	109,471	223,565
Ken Shaw	—	255,961	252,187

1. Includes the number of Nanosonics shares held directly or indirectly and under the employee share plans.

2. The intrinsic value of Nanosonics shares calculated as the closing share price of Nanosonics shares on 30 June 2019 multiplied by the number of shares held.

3. The intrinsic value of performance rights and options calculated as the closing share price of Nanosonics shares on 30 June 2019 less the applicable exercise price multiplied by the number of performance rights and options.

4. Includes shares held by a close family member.

5. Mr Wilson joined the Board as a Non-executive Director effective 17 July 2019. He does not have an equity interest prior to his appointment and to the date of this report.

5.4 KMP share movement

The numbers of shares in the Company held during the financial year by KMP, including their personally-related parties, are set out below.

	Balance at start of the year	Received during the year on the exercise of performance rights and options	Sale of shares during the year	Balance at end of the year ²
Non-executive Directors				
Maurie Stang ¹	20,320,157	—	(1,313,640)	19,006,517
Richard England	13,000	—	—	13,000
David Fisher	503,940	—	(90,000)	413,940
Steven Sargent	107,000	—	—	107,000
Marie McDonald	19,600	—	—	19,600
Executive Director				
Michael Kavanagh	1,328,363	—	(310,000)	1,018,363
Other Executive KMP				
McGregor Grant	587,372	—	—	587,372
Steven Farrugia	—	—	—	—
David Morris	—	—	—	—
Rod Lopez	—	—	—	—
Ken Shaw	—	—	—	—
Gerard Putt ^{1/2}	79,248	73,632	(71,978)	80,902

1. Includes shares held by a close family member.

2. Mr Putt ceased being a KMP on 4 March 2019. Movements in Mr Putt's shareholding and the balance of shares held are reported to this date.

Remuneration report – audited

6.0 EXECUTIVE SERVICE AGREEMENTS

6.1 CEO and President

The following sets out the key terms and conditions of employment for the CEO and President, Michael Kavanagh.

Length of contract	Ongoing employment contract until notice is given by either party.
Fixed Remuneration	\$620,000 p.a., inclusive of superannuation and reviewed annually, increased to \$700,000 p.a. plus superannuation of \$21,003 effective 1 July 2019.
Short-Term Incentive	50% of base salary with a maximum opportunity of 75% of base salary for outperformance.
Long-Term Incentive	60% of base salary.
Notice periods	In order to terminate the employment arrangements, Mr Kavanagh is required to provide Nanosonics with 9 months' written notice. Nanosonics must provide Mr Kavanagh with 9 months written notice.
Resignation	On resignation, unless the Board determines otherwise: <ul style="list-style-type: none">– All unvested STI or LTI benefits are forfeited and a prorated portion of the unvested STI are paid to the period up to the date of termination; and– All vested but unexercised STI or LTI benefits are forfeited (immediately or after 30 days subject to the terms of the award) following cessation of employment.
Termination with notice by Nanosonics	Nanosonics may terminate employment by providing 9 months' written notice or payment in lieu of the notice period based on fixed remuneration. Upon termination with notice by Nanosonics, unless the Board determines otherwise: <ul style="list-style-type: none">– All unvested LTI benefits are forfeited and a prorated portion of the unvested STI are paid to the period up to the date of termination; and– All vested but unexercised STI or LTI benefits are forfeited (immediately or after 30 days subject to the terms of the award) following cessation of employment.
Change of control	In the event of a takeover or change in control of Nanosonics Limited, the Board may, in its discretion, determine that any performance rights or options that have not vested will vest on a date determined by the Board.
Termination for serious misconduct	Nanosonics may immediately terminate employment at any time in the case of serious misconduct, and Mr Kavanagh will only be entitled to payment of fixed remuneration up to the date of termination. On termination without notice by Nanosonics, in the event of serious misconduct, all unvested STI or LTI benefits will be forfeited. The treatment of any vested but unexercised STI or LTI benefits will be at the discretion of the Board.
Statutory entitlements	Payment of statutory entitlements of long service leave and annual leave applies in all event.
Post-employment restraints	Mr Kavanagh will be restrained for a period of up to 24 months after termination of his employment by either party from being engaged in any of the following activities: <ul style="list-style-type: none">– Engaging with clients of Nanosonics with a view to obtaining the custom of those clients in a business that is the same as or similar to Nanosonics' business;– Interfering with the relationship between Nanosonics, its customers, employees, agents, contractors or suppliers;– Inducing or assisting in the inducement of any employee, agent or contractor of Nanosonics to leave their employment or terminate their contract; or– Carrying-on or becoming in any way involved in any trade or business that is in competition with Nanosonics.
Clawback	Mr Kavanagh's remuneration is subject to the Company's Clawback Policy as set out in section 7.3.

6.2 Other Executive KMP

The following sets out details of the key terms and conditions of the Other Executive KMP's employment. The terms for all other Executive KMP are similar but do, on occasion, vary to suit different needs.

Length of contract	Ongoing employment contract until notice is given by either party.
Notice periods	<p>In order to terminate the employment arrangements, either Nanosonics or the Executive KMP are required to provide the other party with written notice as summarised below:</p> <ul style="list-style-type: none"> – David Morris: 6 months. – McGregor Grant: 4 months. – Steven Farrugia, Rod Lopez and Ken Shaw: 3 months.
Resignation	<p>On resignation, unless the Board determines otherwise:</p> <ul style="list-style-type: none"> – All unvested STI or LTI benefits are forfeited; and – All vested but unexercised STI or LTI benefits are forfeited (immediately or after 30 days subject to the terms of the award) following cessation of employment.
Termination with notice by Nanosonics	<p>Nanosonics may terminate employment by providing the relevant written notice or payment in lieu of the notice period based on fixed remuneration. On termination with notice by Nanosonics, unless the Board determines otherwise:</p> <ul style="list-style-type: none"> – All unvested STI or LTI benefits are forfeited; and – All vested but unexercised STI or LTI benefits are forfeited (immediately or after 30 days subject to the terms of the award) following cessation of employment.
Change of control	In the event of a takeover or change in control of Nanosonics Limited, the Board may, in its discretion, determine that any performance rights or options that have not vested will vest on a date determined by the Board.
Termination for serious misconduct	<p>Nanosonics may immediately terminate employment at any time in the case of serious misconduct, and the Executive KMP will only be entitled to payment of fixed remuneration up to the date of termination.</p> <p>On termination without notice by Nanosonics, in the event of serious misconduct, all unvested STI or LTI benefits will be forfeited. The treatment of any vested but unexercised STI or LTI benefits will be at the discretion of the Board.</p>
Statutory entitlements	Payment of statutory entitlements of long service leave and annual leave applies in all events of separation.
Post-employment restraints	<p>With the exception of Mr Shaw, who is employed by Nanosonics Inc under a contract of employment drafted for US-based executive employees, all Executive KMP will be restrained for a period of up to 24 months after termination of their employment by either party from being engaged in any of the following activities:</p> <ul style="list-style-type: none"> – Engaging with clients of Nanosonics with a view to obtaining the custom of those clients in a business that is the same as or similar to Nanosonics' business. Mr Shaw has an equivalent term with a period of 24 months; – Interfering with the relationship between Nanosonics, its customers, employees, agents, contractors or suppliers; – Inducing or assisting in the inducement of any employee, agent or contractor of Nanosonics to leave their employment or terminate their contract. Mr Shaw has an equivalent term for a period of 1 year; or – Carrying-on or becoming in any way involved in any trade or business that is in competition with Nanosonics. Mr Shaw has an equivalent term for a period of 1 year.
Clawback	Other Executive KMP remuneration is subject to the Company's Clawback Policy as set out in section 7.3.

Remuneration report – audited

7.0 REMUNERATION GOVERNANCE

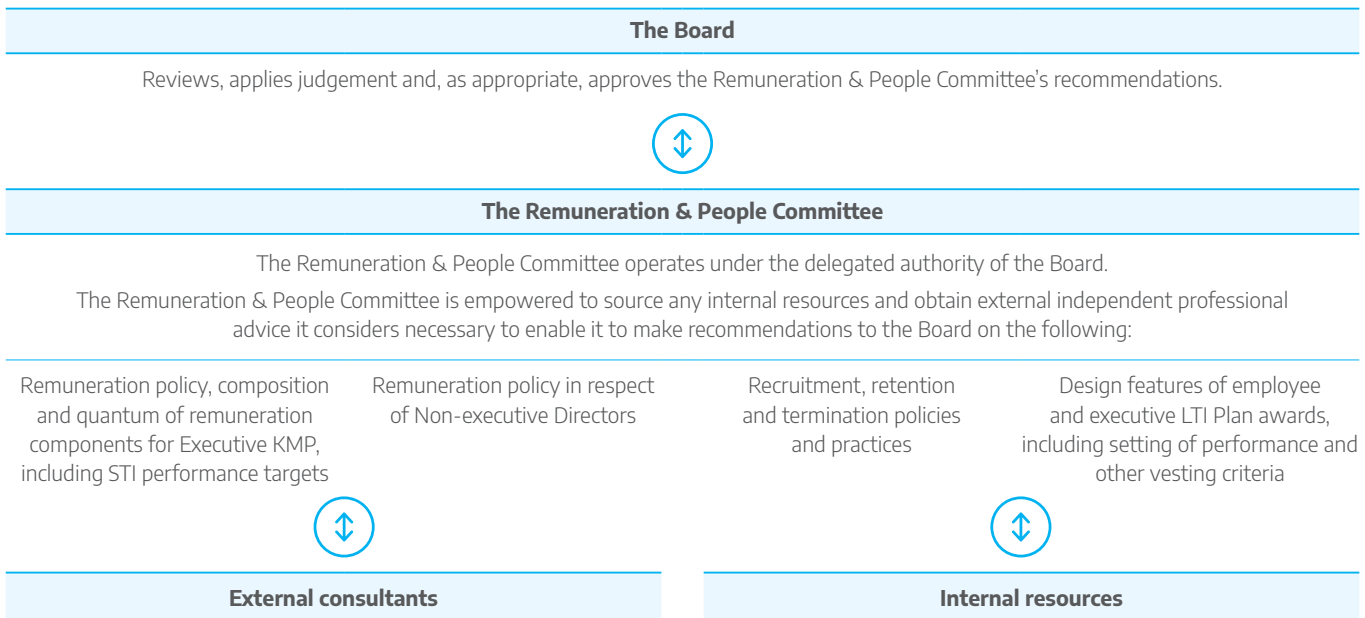
This section describes the role of the Board, the Remuneration & People Committee, and the use of remuneration consultants when making remuneration decisions.

7.1 Role of the Board and the Remuneration & People Committee

The Board is responsible for Nanosonics' remuneration strategy and policy. Consistent with this responsibility, the Board has established a Remuneration & People Committee which comprises a majority of independent Non-executive Directors (including its Chair). The members of the Remuneration & People Committee during the 2019 Financial Year are shown in section 1.

The role and responsibilities of the Remuneration & People Committee are set out in its Charter, which was last revised and approved by the Board in November 2018. In summary, the Remuneration & People Committee's role is to:

- Review and recommend to the Board for approval Nanosonics' remuneration strategy and policy and ensure that appropriate processes and procedures are in place to assess the remuneration levels of the Board and executive KMP, and all other employees across the Group;
- Consider and propose to the Board the remuneration of the CEO&P and consider and approve the remuneration of all designated senior executives;
- Review and recommend to the Board for approval Nanosonics' incentive schemes, including amounts, terms and offer processes and procedures; and
- Determine and recommend to the Board for approval equity awards in accordance with policy and shareholder approvals, including testing of vesting and termination provisions. The Remuneration & People Committee's role and its interaction with the Board, internal and external advisors, is illustrated below.



Further information on the Remuneration & People Committee's role, responsibilities and membership is contained in the Corporate Governance Statement. The Remuneration & People Committee Charter and the Corporate Governance Statement can be viewed in the Corporate Governance section of Nanosonics' website at www.nanosonics.com.au

7.2 Use of remuneration consultants

As appropriate, the Board and Remuneration & People Committee obtain and consider advice directly from external advisors, who are independent of management.

Under engagement and following communication protocols adopted by Nanosonics, the Remuneration & People Committee engaged Laurie Wood at HR Ascent Pty Ltd, to provide benchmarking data to assist in the review of Non-executive Director and CEO&P remuneration.

No 'Remuneration Recommendations' as defined by the Corporations Act were made for the 2019 financial year.

7.3 Clawback

Nanosonics has implemented a policy that gives the Board discretion to clawback or reduce STI or LTI awards if it becomes aware of circumstances that have resulted in an unfair benefit to the executive KMP, including a material misstatement of the Group's financial statements or misconduct of an Executive KMP. The policy is available on Nanosonics' website, www.nanosonics.com.au under Investor Centre, Corporate Governance.

7.4 Securities trading restrictions

Under the Nanosonics Limited Securities Trading Policy and in accordance with the Corporations Act, securities granted under Nanosonics' equity incentive schemes must remain at risk until vested, or until exercised, if performance rights or options. No schemes may be entered into by an individual or their associates that specifically protects the unvested value of shares, performance rights or options.

KMPs are not permitted to deal at any time in financial products such as options, warrants, futures or other financial products issued over Nanosonics' securities by third parties such as banks and other institutions without the prior approval of the Board. An exception may apply where the securities form a component of a listed portfolio or index product.

Remuneration report – audited

KMPs are not permitted to enter into transactions in products associated with the securities without the prior approval of the Board, which operates to limit the economic risk of their security holding in the Company (e.g. hedging arrangements).

Nanosonics, as required under the ASX Listing Rules, has a formal policy setting out how and when employees, including KMPs of Nanosonics Limited, may deal in Nanosonics securities. A copy of the Company's Securities Trading Policy is available on Nanosonics' website, www.nanosonics.com.au under Investor Centre, Corporate Governance.

7.5 Cessation of employment provisions

No benefits are payable on termination other than accrued entitlements. The provisions that apply for STI and LTI awards in the case of cessation of employment are detailed in section 6.

7.6 Change of control

The provisions that apply for STI and LTI awards in the case of a change of control are detailed in section 6.

7.7 Conditions of LTI grants

The conditions under which LTI awards (performance rights and options) are granted are approved by the Board in accordance with the relevant scheme rules as summarised in section 5.

7.8 Minimum shareholding requirement for KMP

In July 2019, the Company introduced a requirement for Non-executive Directors and Executive Key Management Personnel to build and maintain a minimum level of share ownership in the Company. The minimum share ownership is an equity holding equivalent to the previous year's base salary/fees and is expected to be met within 4 years of commencement or appointment.

8.0 NON-EXECUTIVE DIRECTOR REMUNERATION

8.1 Non-executive Director remuneration philosophy

Principle	Comment
Fees are set by reference to key considerations	Fees for Non-executive Directors are based on the nature of the Directors' work and their responsibilities, taking into account the nature and complexity of the Company and the skills and experience of the Director. In determining the level of fees, survey data on comparable companies is considered. External consultants may be used to source the relevant data and commentary. Non-executive Directors' fees are recommended by the Remuneration & People Committee and determined by the Board. Shareholders approve the aggregate amount available for the remuneration of Non-executive Directors.
Remuneration is structured to preserve independence whilst creating alignment	To preserve independence and impartiality, Non-executive Directors are not entitled to any form of incentive payments and the level of their fees is not set with reference to measures of the Company's performance.
Aggregate Board Fees are approved by shareholders.	The total amount of fees paid to Non-executive Directors in the year ended 30 June 2019 is within the aggregate amount approved at a general meeting of the Company on 4 November 2016 of \$1,000,000 a year.
Flexibility in how fees are received	Non-executive Directors can elect how they wish to receive their total fees – i.e. as cash, superannuation contributions or charitable donations.

8.2 Non-executive Director fees and other benefits

Elements	Details	
Board fees per annum ¹	Chairman fee	\$225,000
	Deputy Chairman fee	\$135,000
	Non-executive Director fee	\$100,000
	Committee chair fee	\$20,000
	Committee member fee	\$10,000
Superannuation	Superannuation contributions are included in the Board fees and are made at a rate of 9.5% of base fee (up to the Government's prescribed maximum contributions limit) which satisfies the Company's statutory superannuation contributions.	
Equity instruments	Non-executive Directors do not receive any performance-related remuneration, options or performance shares.	
Other fees/benefits	Non-executive Directors are reimbursed for out-of-pocket expenses that are directly related to Nanosonics' business.	

1. Following a review of Director fees, the Board fees were implemented effective from 1 July 2019. Previously, the Board Chairman's fee was \$170,000; the Non-executive Director fee was \$85,000 and a Committee chair fee was \$15,000. The Deputy Chairman fee was previously not differentiated and there was no separate Committee member fee. The Chairman does not receive separate Committee member fees.

Remuneration report – audited

8.3 Non-executive Director total remuneration

	Year	Fees (\$)	Superannuation (\$)	Total (\$)
Maurie Stang	2019	155,251	14,749	170,000
	2018	155,251	14,749	170,000
Richard England	2019	91,324	8,676	100,000
	2018	91,324	8,676	100,000
David Fisher	2019	91,324	8,676	100,000
	2018	91,324	8,676	100,000
Steven Sargent	2019	91,324	8,676	100,000
	2018	91,324	8,676	100,000
Marie McDonald	2019	77,626	7,374	85,000
	2018	77,626	7,374	85,000
Total	2019	506,849	48,151	555,000
	2018	506,849	48,151	555,000

9.0 KEY MANAGEMENT PERSONNEL TRANSACTIONS

9.1 Loans to KMP and their related parties

During the financial year and to the date of this report, the Group made no loans to Directors and other KMP and none were outstanding as at 30 June 2019 (2018: Nil).

9.2 Other transactions with KMP

Certain Directors and KMP, or their personally-related entities (Related Parties), hold positions in other entities that result in them having control or significant influence over the financial or operating policies of those entities. A number of these entities transacted with the Company in the 2018 and 2019 Financial Years. The terms and conditions of the transactions were no more favourable than those available, or which might reasonably be expected to be available, on similar transactions with unrelated entities on an arms-length basis.

The following transactions occurred with entities controlled by Related Parties:

Related Party	Related Entity	Transactions
Maurie Stang	Gryphon Capital Pty Ltd	Director fees; reimbursement of costs incurred on behalf of Nanosonics
Maurie Stang	Regional Healthcare Group Pty Ltd	Products purchased, services received and products sold
Richard England	Angleterre Nominees Pty Ltd and Domkirke Pty Ltd	Director fees

The below transactions exclude Director fees which are disclosed in section 8.3.

	2019 \$	2018 \$
Sale of products and services to Related Parties	2,772,811	2,409,140
Purchases of goods and services from Related Parties	1,865	2,715
Reimbursement of costs incurred on behalf on Nanosonics	8,659	10,520

Financial statements

For the year ended 30 June 2019

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Auditor's Independence Declaration to the Directors of Nanosonics Limited

As lead auditor for the audit of the financial report of Nanosonics Limited for the financial year ended 30 June 2019, I declare to the best of my knowledge and belief, there have been:

- a) no contraventions of the auditor independence requirements of the *Corporations Act 2001* in relation to the audit; and
- b) no contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Nanosonics Limited and the entities it controlled during the financial year.

A handwritten signature in black ink that reads "Ernst & Young".

Ernst & Young

A handwritten signature in black ink that reads "Gamini Martinus".

Gamini Martinus
Partner
27 August 2019

Consolidated statement of profit or loss and other comprehensive income

For the year ended 30 June 2019

	Notes	2019 \$'000	2018 \$'000
Continuing operations			
Revenue	2.2	84,324	60,698
Cost of sales		(21,508)	(15,407)
Gross profit		62,816	45,291
Selling and general expenses		(27,089)	(22,955)
Administration expenses		(10,716)	(9,734)
Research and development expenses		(11,375)	(9,882)
Other income		24	93
Other gains – net	2.4	1,842	1,549
Results from operating activities		15,502	4,362
Finance income – interest		1,571	1,279
Finance expense		(243)	(58)
Net finance income		1,328	1,221
Operating profit before income tax		16,830	5,583
Income tax (expense)/benefit	3.1	(3,228)	168
Net profit after income tax expense attributable to owners of the parent entity		13,602	5,751
Other comprehensive loss			
Items that may be reclassified subsequently to profit or loss			
Exchange difference on foreign currency translation		(1,224)	(974)
Effective portion of changes in fair value of cash flow hedges		64	(129)
Income tax on items of other comprehensive (loss)/income		(19)	38
Total other comprehensive loss		(1,179)	(1,065)
Total comprehensive income for the year attributable to owners of the parent entity		12,423	4,686
Earnings per share information:			
		Cents	Cents
Basic earnings per share	2.5(a)	4.54	1.92
Diluted earnings per share	2.5(b)	4.49	1.91

The notes on pages 61 to 92 form an integral part of these consolidated financial statements.

Consolidated statement of financial position

As at 30 June 2019

	Notes	2019 \$'000	2018 \$'000
Assets			
Current assets			
Cash and cash equivalents	6.1	72,180	69,433
Trade and other receivables	6.2	19,700	8,613
Inventories	7.1	14,018	8,936
Derivative financial instruments	6.3	189	158
Cost to obtain customer contracts	5.1	280	—
Income taxes receivable		143	6
Prepayments and other current assets		2,102	1,364
Total current assets		108,612	88,510
Non-current assets			
Property, plant and equipment	7.2	6,729	5,268
Intangible assets	7.3	799	563
Net deferred tax assets	3.2	12,893	14,808
Other non-current assets		37	32
Derivative financial instruments	6.3	237	—
Cost to obtain customer contracts	5.1	214	—
Total non-current assets		20,909	20,671
Total assets		129,521	109,181
Liabilities			
Current liabilities			
Trade and other payables	6.4	7,004	4,371
Income taxes payable		82	46
Contract liabilities	5.1	4,012	2,932
Employee benefits liabilities	4.2	3,453	3,006
Provisions	7.4	678	505
Borrowings	6.5	445	424
Derivative financial instruments	6.3	287	684
Total current liabilities		15,961	11,968
Non-current liabilities			
Trade and other payables	6.4	121	195
Contract liabilities	5.1	2,532	1,678
Employee benefits liabilities	4.2	513	440
Provisions	7.4	75	75
Borrowings	6.5	76	522
Derivative financial instruments	6.3	160	—
Total non-current liabilities		3,477	2,910
Total liabilities		19,438	14,878
Net assets		110,083	94,303
Equity			
Contributed equity	9.1(a)	112,713	112,713
Reserves		14,820	13,061
Accumulated losses		(17,450)	(31,471)
Total equity		110,083	94,303

The notes on pages 61 to 92 form an integral part of these consolidated financial statements

Consolidated statement of changes in equity

For the year ended 30 June 2019

	Reserves						Total equity
	Contributed Equity	Share-based payments	Foreign currency translation	Hedging	Total reserves	Accumulated losses	
Note 9.1 (a)	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
At 30 June 2017	112,713	11,020	740	—	11,760	(37,222)	87,251
Profit for the period	—	—	—	—	—	5,751	5,751
Other comprehensive loss	—	—	(974)	(129)	(1,103)	—	(1,103)
Income tax on item of other comprehensive loss	—	—	—	38	38	—	38
Total comprehensive income	—	—	(974)	(91)	(1,065)	5,751	4,686
Transaction with owners in their capacity as owners							
Share-based payments	—	2,187	—	—	2,187	—	2,187
On-market share purchase	—	(99)	—	—	(99)	—	(99)
Income tax on share-based payments	—	278	—	—	278	—	278
At 30 June 2018	112,713	13,386	(234)	(91)	13,061	(31,471)	94,303
At 1 July 2018							
	112,713	13,386	(234)	(91)	13,061	(31,471)	94,303
Change in accounting policy ¹	—	—	—	—	—	419	419
At 1 July 2018 restated	112,713	13,386	(234)	(91)	13,061	(31,052)	94,722
Profit for the period	—	—	—	—	—	13,602	13,602
Other comprehensive (loss)/income	—	—	(1,224)	64	(1,160)	—	(1,160)
Income tax on item of other comprehensive income	—	—	—	(19)	(19)	—	(19)
Total comprehensive income	—	—	(1,224)	45	(1,179)	13,602	12,423
Transaction with owners in their capacity as owners							
Share-based payments	—	1,616	—	—	1,616	—	1,616
Income tax on share-based payments	—	1,322	—	—	1,322	—	1,322
At 30 June 2019	112,713	16,324	(1,458)	(46)	14,820	(17,450)	110,083

1. Refer to note 1.2(i) for further information regarding changes in accounting policies.

The notes on pages 61 to 92 form an integral part of these consolidated financial statements.

Consolidated statement of cash flows

For the year ended 30 June 2019

	Notes	2019 \$'000	2018 \$'000
Operating activities			
Receipts from customers (inclusive of GST/VAT)		75,611	63,618
Payments to suppliers and employees (inclusive of GST/VAT)		(72,201)	(55,685)
Interest received		1,555	1,224
Income taxes paid		(139)	(148)
Net cash provided by operating activities	6.1(ii)	4,826	9,009
Investing activities			
Purchase of property, plant and equipment		(1,684)	(2,314)
Purchase of intangible assets		(551)	(507)
Proceeds from disposal of property, plant and equipment		34	8
Net cash used in investing activities		(2,201)	(2,813)
Financing activities			
Repayment of borrowings		(425)	(404)
Interest paid		(36)	(58)
Purchase of shares on exercise of performance rights		—	(99)
Net cash used in financing activities		(461)	(561)
Net increase in cash and cash equivalents		2,164	5,635
Cash and cash equivalents at the beginning of the financial year		69,433	62,989
Effect of exchange rate changes on cash and cash equivalents		583	809
Cash and cash equivalents at the end of the financial year	6.1(i)	72,180	69,433

The notes on pages 61 to 92 form an integral part of these consolidated financial statements.

Notes to the consolidated financial statements

1 GENERAL ACCOUNTING POLICIES

This section sets out the Company's accounting policies that relate to the financial statements as a whole. Where an accounting policy is specific to one note, the policy is described in the note to which it relates.

1.1 Reporting entity

Nanosonics Limited (the Company or Parent Entity) is a listed public company, limited by shares, incorporated and domiciled in Australia. The consolidated financial statements of the Company as at and for the year ended 30 June 2019, comprise the Company and its subsidiaries (together referred to as Nanosonics, the Group or the Consolidated Entity).

Nanosonics Limited is a for-profit entity for the purpose of preparing the financial statements. A description of the nature of the Group's operations and its principal activities is included in the review of operations in the CEO's report and Regional highlights on pages 6 to 16 of this Annual Report and in the Directors' Report on page 30.

1.2 Basis of preparation

a. Statement of compliance

The Financial Report is a general purpose financial report which has been prepared in accordance with Australian Accounting Standards (AASB) and Interpretations issued by the Australian Accounting Standards Board and the Corporations Act 2001. The consolidated financial statements also comply with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

The Board of Directors approved the consolidated financial statements on 27 August 2019.

b. Basis of measurement

The consolidated financial statements have been prepared on a historical cost basis except for financial assets and financial liabilities including derivative instruments which are measured at fair value.

c. Basis of consolidation

Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of the subsidiaries are included in the financial statements from the date the control commences until the date that control ceases. Information on subsidiaries is contained in note 10.3 to the financial statements.

Transactions eliminated on consolidation

In preparing the consolidated financial statements, all inter-company balances and transactions between entities in the Group, including any unrealised profits or losses, have been eliminated in full.

d. Functional and presentation currency

The consolidated financial statements are presented in Australian dollars (AUD), which is Nanosonics Limited's functional and presentation currency.

e. Foreign currency

Transactions and balances

Foreign currency transactions are translated into the respective functional currencies of the entities using the exchange rates that approximate the actual exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies, are recognised in the consolidated statement of profit or loss, except when they are deferred in equity as qualifying cash flow hedges and qualifying net investment hedges or are attributable to part of the net investment in a foreign operation. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined.

Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss.

Financial statements of foreign operations

The results and financial position of foreign operations are translated into the Company's functional and presentation currency as follows:

- assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that statement of financial position;
- income and expenses for each profit or loss statement are translated at average exchange rates; and
- all resulting exchange differences are recognised in other comprehensive income – foreign currency translation reserve.

On consolidation, exchange differences arising from the translation of any net investment in foreign entities, and of borrowings and other financial instruments designated as hedges of such investments, are recognised in other comprehensive income.

When a foreign operation is sold, or any borrowings forming part of the net investment are repaid, a proportionate share of such exchange differences is reclassified to profit or loss, as part of the gain or loss on sale, where applicable.

f. Use of judgements and estimates

The preparation of financial statements in conformity with AASB/IFRS requires management to exercise judgement and make estimates and assumptions that affect the application of the Group's accounting policies and the reported amounts of assets, liabilities, revenues and expenses. Actual results may differ from these estimates. The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in any future periods affected.

The key estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amount of certain assets and liabilities are included in the following notes:

- note 3.2 Deferred taxes
- note 4.2 Employee benefits liabilities
- note 4.3 Share-based payments
- note 5.1 Contract balances
- note 7.1 Inventories
- note 7.4 Provisions
- note 8 Financial risk management

Notes to the consolidated financial statements

1 GENERAL ACCOUNTING POLICIES (continued)

g. Goods and services tax (GST), Value added tax (VAT)

Revenues, expenses and assets are recognised net of the amount of associated GST or VAT as applicable, unless the GST/VAT incurred is not recoverable from the taxation authority, in which case, the GST/VAT is recognised as part of the cost of acquisition of the asset or as part of the expense.

Receivables and payables are stated inclusive of the amount of GST/VAT receivable or payable. The net amount of GST/VAT recoverable from, or payable to, the taxation authority is included with other current receivables or payables in the statement of financial position.

Cash flows are presented on a gross basis. The GST/VAT components of cash flows arising from investing or financing activities which are recoverable from, or payable to, the taxation authority are presented as operating cash flows.

h. Rounding

The Company is of a kind referred to in ASIC Instrument 2016/191 issued in 2016 and in accordance with that Instrument, all financial information presented in AUD has been rounded to the nearest thousand dollars (\$'000), unless otherwise stated.

i. Changes in significant accounting policies

The group has adopted the new accounting standards *AASB 15 Revenue from Contracts with Customers* and *AASB 9 Financial Instruments* utilising the modified retrospective method with initial application from 1 July 2018. The cumulative effect of adopting the standards has been recorded as an adjustment to the opening balance of retained earnings as set out below. Therefore, the comparative information was not restated and continues to be reported under the previous accounting standards.

AASB 15 Revenue from Contracts with Customers

Opening balance adjustment as at 1 July 2018

		1 July 2018 \$'000
Decrease in contract liabilities	i, ii	256
Increase in costs to obtain customer contracts	iii	301
Decrease in net deferred tax assets		(138)
Increase in retained earnings as at 1 July 2018		419

The following tables summarise the impact of adopting *AASB 15 Revenue from Contracts with Customers* on the Group's statement of financial position as at 30 June 2019 and its statement of profit or loss and other comprehensive income for the year then ended for each of the line items affected.

Impact on the consolidated statement of financial position

As at 30 June 2019

	Notes	As reported \$'000	Adjustments \$'000	Amounts under previous revenue standard \$'000
Assets				
Costs to obtain customer contracts	iii	494	(494)	—
Net deferred tax assets		12,893	189	13,082
Others		116,134	—	116,134
Total assets		129,521	(305)	129,216
Liabilities				
Contract liabilities	i, ii	6,544	212	6,756
Others		12,894	—	12,894
Total liabilities		19,438	212	19,650
Net assets		110,083	(517)	109,566
Equity				
Accumulated losses		(17,450)	(517)	(17,967)
Others		127,533	—	127,533
Total equity		110,083	(517)	109,566

1 GENERAL ACCOUNTING POLICIES (continued)

Impact on the consolidated statement of profit or loss and other comprehensive income

For the period ended 30 June 2019

	Notes	As reported \$'000	Adjustments \$'000	Amounts without adoption of AASB 15 \$'000
Continuing operations				
Revenue	i, ii	84,324	(158)	84,166
Selling and general expenses	iii	(27,089)	(191)	(27,280)
Finance expense	ii	(243)	203	(40)
Income tax expense		(3,228)	48	(3,180)
Others		(41,341)	—	(41,341)
Total comprehensive income		12,423	(98)	12,325

- i) Under *AASB 15*, the recognition of revenue on multi-element service contracts occurs upon the fulfilment of distinct performance obligations within service contracts. Certain performance obligations within existing service contracts are recognised at a point in time under *AASB 15*. These were previously not differentiated and recognised over the contract period. The impact of the change results in an adjustment to service revenue and contract liabilities.
- ii) Some customers purchase service contracts up-front or enter into multi-period service contracts resulting in the Group holding the payment for periods greater than 12 months in advance of revenue recognition. Under *AASB 15*, timing between upfront consideration received and the fulfilment of services gives rise to a financing component. The impact of the change results in an adjustment to service revenue, finance costs and contract liabilities. The Group has elected to use the practical expedient related to the existence of significant financing components under the new standard.
- iii) Under *AASB 15*, incremental contract costs of sales commissions will be amortised over the contract period. These were previously expensed in the period they are paid or become payable. The impact of the change results in the capitalisation of costs to obtain customer contracts, and a decrease in selling and general expenses.

The accounting policy for revenue recognition is set out in note 2.1.

AASB 9 Financial Instruments

The standard replaces all previous versions of *AASB 9* and *IAS 39 Financial Instruments: Recognition and Measurement*. *AASB 9* introduces new classification and measurement models for financial assets. New hedge accounting requirements are intended to more closely align the accounting treatment with the risk management activities of the entity. *AASB 9* has changed the assumptions for the Group's accounting for impairment losses for financial assets by replacing the incurred loss approach with a forward-looking expected credit loss (ECL) approach.

Except for derivative financial instruments, the group initially recognises a financial asset, including trade receivables, at fair value and subsequently measures these at amortised cost using the effective interest rate. The Group's receivables are held to collect contractual cash flows and the cash flows represent solely payments of principal and interest. The accounting policy for derivative financial instruments is set out in note 6.3.

The Group assessed the ECL related to each category of receivables. The adoption of *AASB 9* has no significant impact to the Group and no adjustments were required in relation to *AASB 9*. The accounting for the Group's financial liabilities remains largely the same as it was under *AASB 139*.

Notes to the consolidated financial statements

2 PERFORMANCE FOR THE YEAR

2.1 Revenue

AASB 15 establishes a five-step model to account for revenue arising from contracts with customers. Under AASB 15, entities are required to exercise more judgement in developing revenue recognition policies, taking into consideration all the relevant facts and circumstances when applying each step of the model. The Group has revised its accounting policy in line with the requirements of AASB 15. A summary of the impact of the revised accounting policy for the period ended 30 June 2019 is included in note 1.2(i).

Revenue from contracts with customers is recognised when the control of goods and services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods and services.

Sale of goods

The Group's sales of goods consist of the sale of capital equipment which includes the sale of trophon® and related accessories, and the sale of consumables and spare parts. Revenue is recognised at a point in time when the Group has delivered goods to its customers, and it is probable that consideration will be collected in exchange. Revenue is measured on the consideration expected to be received, net of trade rebates and discounts paid. If the contract includes variable consideration, the variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognised will not occur which is when the associated uncertainty with the variable consideration is subsequently resolved. Some contracts for the sale of goods provide customers with volume rebates which give rise to variable consideration.

The Group provides retrospective volume rebates to certain customers once certain contracted thresholds have been achieved. Rebates are offset against amounts receivable from the customer. To estimate the variable consideration for the expected future rebates, the Group applies the most likely amount method for contracts with a single-volume threshold and the expected value method for contracts with multi-tiered thresholds. The selected method that best predicts the amount of variable consideration is primarily driven by the number of volume thresholds contained in the contract. The Group then applies the requirements on constraining estimates of variable consideration and recognises an offset against trade and other receivables for the expected future rebates.

Service

The Group's sale of services is recognised using a proportionate fair value method based on relative standalone selling prices or in certain circumstances, using the residual method of distinct performance obligations within service contracts. Service contracts have separately identifiable performance obligations that are either provided at a point in time or over time. Revenue from the sale of services is recognised when the distinct performance obligation is fulfilled.

Financing component

The timing between upfront consideration received and the fulfilment of services gives rise to a financing component. Using the practical expedient in AASB 15, the Group does not adjust the promised amount of consideration for the effects of a significant financing component if it expects, at contract inception, that the period between the transfer of the promised good or service to the customer and when the customer pays for that good or service will be one year or less. Some customers purchase service contracts up-front or enter into multi-period service contracts resulting in the Group holding the payment greater than 12 months in advance of revenue recognition. The transaction price for such contracts is discounted, using the rate that would be reflected in a separate financing transaction between the Group and its customers at contract inception, to take into consideration the significant financing component.

Interest income

Interest income is recognised on a time proportion basis using the effective interest method.

Foreign exchange

The accounting policy for foreign exchange gains arising from hedges of forecast sales transactions is set out in note 6.3.

2.2 Segment and revenue information

Operating segment

The Group has identified its operating segments based on the internal reports that are reviewed and used by the Chief Executive Officer & President (the Chief Operating Decision Maker) in assessing performance and in determining the allocation of resources. The Group operates in a single operating segment, being the healthcare equipment segment. Accordingly, the Group's consolidated total assets are the total reportable assets of the operating segment.

Types of products and services

The principal products and services of the healthcare equipment segment are the manufacture and commercialisation of infection control and decontamination products and related technologies.

2 PERFORMANCE FOR THE YEAR (continued)

Major customers

The group has a number of customers to which it provides products and services. The most significant customer accounts for approximately 54% of external revenue (2018: 49.3%). The next most significant customer accounts for approximately 3.4% of external revenue (2018: 4.6%).

Geographical information

Geographically, the Group operates globally. Australia is the home country of the parent entity. Revenues are allocated based on the country in which the customer is located.

Revenue from external customers by geographical location is detailed below:

	North America \$'000	Europe and Middle East \$'000	Asia Pacific \$'000	Total \$'000
For the year ended 30 June 2019				
Capital revenue before hedging	31,218	1,076	784	33,078
Foreign exchange loss on hedged sales	(261)	—	—	(261)
Total capital revenue	30,957	1,076	784	32,817
Consumables and spare parts	40,017	2,194	1,694	43,905
Service	5,537	532	1,533	7,602
Total consumables and service revenue	45,554	2,726	3,227	51,507
Total revenue	76,511	3,802	4,011	84,324
At a point in time	74,621	3,705	3,436	81,762
Over time	1,890	97	575	2,562
For the year ended 30 June 2018				
Capital revenue before hedging	23,997	891	610	25,498
Foreign exchange gain on hedged sales	49	—	—	49
Total capital revenue	24,046	891	610	25,547
Consumables and spare parts	27,279	1,695	1,384	30,358
Service	3,081	397	1,315	4,793
Total consumables and service revenue	30,360	2,092	2,699	35,151
Total revenue	54,406	2,983	3,309	60,698
At a point in time	52,431	2,590	2,007	57,028
Over time	1,975	393	1,302	3,670

For the purpose of this note, non-current assets consist of property, plant and equipment, intangible assets and other non-current assets excluding net deferred tax asset and derivative financial instruments. Assets and capital expenditure are allocated based on where the assets are located.

The analysis of non-current assets by geographical location is detailed below:

	2019 \$'000	2018 \$'000
North America	1,032	571
Europe and Middle East	1,464	518
Asia Pacific	5,283	4,774
Total	7,779	5,863

Notes to the consolidated financial statements

2 PERFORMANCE FOR THE YEAR (continued)

2.3 Individually significant items

The profit from ordinary activities before income tax includes the following expenses:

	2019 \$'000	2018 \$'000
Depreciation, amortisation and impairment	2,140	1,499
Rental expenses relating to operating leases	1,148	996
Inventory provision	475	592

2.4 Other gains – net

Foreign exchange gains and losses are recognised in accordance with the accounting policy at note 1.2(e). Gains or losses on derivative financial instruments are recognised in accordance with the accounting policy referred in note 6.3.

	2019 \$'000	2018 \$'000
Realised gain on derivative financial instruments	109	187
Unrealised loss on derivative financial instruments	(669)	(397)
Net foreign exchange gain	2,388	1,757
Net gain on foreign currency	1,828	1,547
Gain on disposal of property, plant and equipment	14	2
Total other gains – net	1,842	1,549

2.5 Earnings per share

Basic earnings per share (EPS) is calculated by dividing the net profit attributable to equity holders of the Company for the reporting period by the weighted average number of ordinary shares of the Company outstanding during the financial year.

Diluted EPS adjusts the figures used in the determination of Basic EPS to take into account the after income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of additional ordinary shares that would have been outstanding assuming the conversion of all dilutive potential ordinary shares.

	2019 Cents	2018 Cents
a) Basic earnings per share		
Basic earnings attributable to the ordinary equity holders of the parent entity	4.54	1.92
b) Diluted earnings per share		
Diluted earnings attributable to the ordinary equity holders of the parent entity	4.49	1.91

	\$'000	\$'000
c) Net earnings used in calculating earnings per share		
Net profits after income tax expense attributable to owners of the parent entity	13,602	5,751

	Number of shares	Number of shares
d) Weighted average number of shares used as the denominator		
Weighted average number of ordinary shares used as the denominator in calculating basic earnings per share	299,767,940	298,974,730
Adjustments for calculation of diluted earnings per share		
Performance rights and options	3,341,958	2,728,009
Weighted average number of ordinary shares and potential ordinary shares used as the denominator in calculating diluted earnings per share	303,109,898	301,702,739

2.6 Dividends

No dividends were proposed, declared or paid during the financial year and to the date of this report (2018: Nil).

3 INCOME TAXES

3.1 Income tax expense

The income tax expense or benefit for the period is the tax payable on or benefit attributable to the current period's taxable income based on the notional income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences and to unused tax losses and adjustments in relation to prior periods. Current and any deferred tax utilised are recognised in the consolidated statement of profit or loss except to the extent that they relate to items recognised directly in other comprehensive income or equity.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year and any adjustment to tax payable or receivable in respect of previous years. It is measured using tax rates enacted or substantively enacted at the reporting date.

The major components of income tax expense for the period are:

	2019 \$'000	2018 \$'000
Consolidated statement of profit or loss		
Current income tax		
Current income tax expense	(11,536)	(5,582)
Deferred income tax		
Recognition and utilisation of deferred tax assets (net) including origination and reversal of temporary differences	8,079	5,834
	(3,457)	252
Adjustment relating to prior periods	229	(84)
Income tax (expense)/benefit reported in the statement of profit or loss	(3,228)	168
Tax relating to item in other comprehensive loss		
Deferred tax (expense)/benefit recognised directly in other comprehensive loss relating to derivative financial instruments	(19)	38
Tax benefit relating to items in equity		
Current tax benefit on share-based payments	113	508
Deferred tax benefit/(expense) on share-based payments	1,209	(230)
Tax benefit charged to equity	1,322	278

The Group first recorded previously unrecognised deferred tax assets in relation to the Australian entities in 2017 and the US entity in 2018 based on an assessment of its operations. Following a further assessment of the operations of the Group for the year ended 30 June 2019, it has been determined that taxable profits will continue to be generated by the Australian and US entities against which tax credits and future deductible temporary differences will be utilised.

Following an assessment of the groups Canadian and UK operations, it has been determined that it is probable that taxable profits will be generated by the Canadian and UK subsidiaries against which carried forward tax losses and deductible temporary differences will be utilised. As a result, previously unrecognised deferred tax assets for the Canadian and UK entities were recognised in 2019 to the extent of probable taxable profits.

The net deferred tax assets of the Group as at 30 June 2019 amounted to \$12,893,000 (2018: \$14,808,000) as detailed in note 3.2.

Notes to the consolidated financial statements

3 INCOME TAXES (continued)

The reconciliation of income tax expense to prima facie tax payable is as follows:

	2019 \$'000	2018 \$'000
Operating profit before income tax from continuing operations	16,830	5,583
The prima facie income tax expense applicable to the operating profit is calculated at the Australian tax rate of 30% (2018: 30%)	(5,049)	(1,675)
<i>Increase in income tax expense due to:</i>		
Non-deductible expenses	(372)	(289)
Research and development	(3,412)	(2,964)
Derecognition of deferred tax assets in foreign jurisdictions	—	(794)
Effect of tax rate in foreign jurisdictions	—	(535)
<i>Decrease in income tax expense due to:</i>		
Other deductible expenses	354	2,038
Utilisation of R&D tax credit in Australia	4,710	1,981
Initial recognition and/or utilisation of deferred tax assets related to foreign subsidiaries	203	2,437
Utilisation of unrecognised deferred tax assets in foreign jurisdictions	—	53
Effect of tax rate in foreign jurisdictions	109	—
Adjustment relating to prior period	229	(84)
Income tax (expense)/benefit	(3,228)	168

3.2 Deferred taxes

Deferred income tax is calculated, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements.

Deferred income tax is determined using tax rates that have been enacted or substantially enacted by the reporting date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognised for deductible temporary differences and unused tax losses and tax credits only if it is probable that future taxable amounts will be available to utilise these temporary difference, losses and credits, and on the assumption that no adverse change will occur in income tax legislation enabling the benefit to be realised and comply with the conditions of deductibility imposed by the law.

Significant management judgement is required to determine the amount of deferred tax asset that can be recognised, based upon the likely timing and level of future taxable profits together with future tax planning strategies. These are reviewed at each reporting date.

An assessment of the operations resulted in the recognition of the deferred tax assets on losses and temporary differences relating to the Australian entity in 2017 and US entity in 2018 and the deferred tax asset on losses of the Canadian and UK entities in 2019 as it has been determined that it is probable that taxable profits will be generated against which these can be utilised.

Deferred tax asset and liabilities, if recognised, are classified as non-current assets and liabilities.

3 INCOME TAXES (continued)

As at 30 June 2019, the net deferred tax asset recognised in the statement of financial position comprises:

	2019 \$'000	2018 \$'000
Deferred tax assets		
Non-refundable R&D tax credits	4,019	9,915
Tax losses in foreign subsidiary tax jurisdictions	1,139	1,102
Share-based payments	2,624	1,073
Employee benefits liabilities	975	857
Patent costs	564	605
Provisions for warranties and make good	226	174
Share issue costs	2	61
Contract liabilities	1,639	1,091
Inventory provision	235	358
Deferred rent	59	73
Derivative financial instruments	19	158
Future intercompany deductible expenses	1,769	244
Others	526	126
Total deferred tax assets	13,796	15,837
Deferred tax liabilities		
Unrealised foreign exchange gains	(193)	(893)
Accrued interest and other income	(120)	(117)
Property, plant and equipment	(489)	(12)
Others	(101)	(7)
Total deferred tax liabilities	(903)	(1,029)
Net deferred tax asset	12,893	14,808

The Group offsets tax assets and liabilities only if it has legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same tax authority.

As at 30 June 2019, the Group has unrecognised deferred tax assets in relation to its subsidiaries as follows:

	2019 \$'000	2018 \$'000
Estimated unrecognised tax losses carried forward:		
Unrecognised tax losses brought forward at the beginning of the period	7,846	11,284
Adjustment in respect of unrecognised tax losses carried forward relating to prior periods	212	(679)
Carried forward tax losses utilised	(928)	(2,237)
Tax losses for the period related to non-Australian entities	—	3,649
Recognition of deferred tax assets on US tax losses	—	(4,171)
Partial recognition of deferred tax assets on Canadian tax losses	(761)	—
Partial recognition of deferred tax assets on UK tax losses	(1,917)	—
Estimated unrecognised tax losses carried forward at the end of the period	4,452	7,846
Potential tax benefit at 20.4% effective tax rate (2018: 20.7%)	909	1,628

The probability of recovery of unrecognised tax losses in relation to the subsidiaries is reviewed on an on-going basis.

Notes to the consolidated financial statements

4 EMPLOYEE BENEFITS

4.1 Staffing costs

Staffing costs included in the profit or loss statement consist of:

	2019 \$'000	2018 \$'000
Salaries and wages	26,299	22,093
Termination benefits	329	544
Superannuation, pension and social security contribution	2,760	2,204
Workers' compensation	172	154
Payroll tax	1,056	985
Insurance premiums	1,154	828
Other employee benefits and staffing costs	3,774	3,149
Share-based payments	1,616	2,187
	37,160	32,144

The above staffing costs have been broken down into:

Cost of sales	6,009	4,514
Selling and general expenses	17,343	15,026
Administration expenses	6,703	5,757
Research and development expenses	7,105	6,847
	37,160	32,144

4.2 Employee benefits liabilities

i) Wages, salaries and annual leave

Liabilities for employee benefits, including wages, salaries and non-monetary benefits, and accumulated annual and other leave, represent present obligations resulting from employees' services provided to the reporting date. Employee benefits have been measured at the amounts expected to be paid when the liabilities are settled and are recognised in the provision for employee benefits. The liability is calculated on remuneration rates as at the reporting date, including related on-costs such as workers' compensation insurance and payroll tax.

ii) Long service leave

The liability for long service leave is recognised in the provision for employee benefits and measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date.

Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields on corporate bonds at the reporting date with terms to maturity that match, as closely as possible, the estimated future cash outflows.

The current portion of this liability includes the unconditional entitlements to long service leave where employees have completed the required period of service and also those where employees are entitled to pro-rata payments in certain circumstances.

iii) Bonuses

The Group recognises a liability and an expense for bonuses. The Group recognises a provision where contractually obliged and where there is a past practice that has created a constructive obligation.

iv) Termination benefits

Termination benefits are payable when employment is terminated before the normal retirement or end of employment contract date, or when an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits when it is demonstrably committed to either terminating the employment of current employees according to a formal plan without possibility of withdrawal or providing termination benefits as a result of an offer made to encourage voluntary redundancy.

Short-term and long-term classification of benefits

Benefits that are expected to be settled wholly within 12 months after the end of the annual reporting period in which the employees render the related service are classified as short-term employee benefits. Short-term employee benefits are accounted for on an undiscounted basis in the period in which the service is rendered. Long-term employee benefits are benefits that are not expected to be wholly settled within 12 months, are discounted allowing for expected salary levels in the future period. Cash bonuses are classified as short-term employee benefits while annual leave and long service leave are long-term employee benefits.

4 EMPLOYEE BENEFITS (continued)

Employee benefits liabilities as at the reporting date:

	2019			2018		
	Current \$'000	Non-current \$'000	Total \$'000	Current \$'000	Non-current \$'000	Total \$'000
Provision for annual leave	1,818	—	1,818	1,471	—	1,471
Provision for long service leave	162	513	675	200	440	640
Provision for bonuses	1,473	—	1,473	1,335	—	1,335
Total employee benefits liabilities	3,453	513	3,966	3,006	440	3,446

4.3 Share-based payments

Share-based compensation benefits are equity-settled transactions provided to employees via the Nanosonics share-based compensation plans.

i) Share-based compensation plans

On 4 November 2016, the Nanosonics Omnibus Equity Plan (NOEP) was adopted following approval by shareholders. The Omnibus Plan allows the Board to issue a range of incentive awards with the purpose of providing competitive, performance-based remuneration in alignment with the interests of shareholders. The NOEP is intended to replace existing plans and will operate in accordance with the terms of the Nanosonics Omnibus Equity Plan Trust Deed, under which the trustee may subscribe for, or acquire, deliver, allocate or hold, shares for the benefit of the participants. Participants will be able to access the relevant taxation concessions available under the Income Tax Assessment Act 1997 (ITAA 1997).

Under the NOEP Plan, eligible employees (including Executive Directors, casual employees and certain contractors) may be offered shares in Nanosonics Limited (Share Awards), Performance Share Awards, options or rights.

Participation in the NOEP is at the Board's discretion and no individual has a contractual right to participate in it or to receive any guaranteed benefits.

The Company also has the Nanosonics Employee Share Option Plan (ESOP) which was established in 2007 and last approved by the shareholders on 8 November 2013. The ESOP is being phased out and replaced by the NOEP. No further offers will be made under the ESOP.

ii) Exercise of performance rights and options

Performance rights and options are granted under the NOEP for no consideration and carry no dividend or voting rights. When exercisable, each performance right and option is convertible into one ordinary share that ranks equally with any other share on issue in respect of dividends and voting rights. The exercise prices of all performance rights and options issued to the date of this report were fixed on the dates the performance rights and options were granted.

Performance rights and options granted under the NOEP requires the holder to be an employee of the Company at the time the performance rights and options are exercised, except that they may be exercised, if vested up to 12 months from the last date of employment provided it is a Qualifying Event (as defined in the NOEP plan rules to include death, serious injury/illness, retirement, retrenchment or as otherwise determined by the Board).

iii) Reconciliation of outstanding performance rights and options

The number and weighted average exercise price (WAEP) of performance rights and options under the share option plans were as follows:

	NOEP				ESOP				All Plans	
	2019		2018		2019		2018		2019	2018
	Number of options and rights	WAEP (\$)	Number of options and rights	WAEP (\$)	Number of options and rights	WAEP (\$)	Number of options and rights	WAEP (\$)	Number of options and rights	Number of options and rights
Unexpired as at 1 July	2,293,411	1.35	1,070,230	1.32	966,542	—	2,452,292	—	3,259,953	3,522,522
Granted during the year	1,890,430	2.53	1,601,972	1.25	—	—	—	—	1,890,430	1,601,972
Exercised during the year	(179,178)	—	(201,843)	—	(443,022)	—	(1,461,033)	—	(622,200)	(1,662,876)
Forfeited during the year	(385,822)	1.30	(176,948)	1.77	(138,732)	—	(24,717)	—	(524,554)	(201,665)
Unexpired as at 30 June	3,618,841	2.04	2,293,411	1.35	384,788	—	966,542	—	4,003,629	3,259,953
Exercisable at 30 June	127,011	—	21,799	—	384,788	—	—	—	511,799	21,779

622,200 performance rights and options were exercised in 2019. The weighted average share price based on the dates of the exercise was \$3.29 (2018: \$2.49). No performance rights or options expired during the periods covered by the above table.

Notes to the consolidated financial statements

4 EMPLOYEE BENEFITS (continued)

Performance rights and options outstanding at the end of the year have the following expiry dates and exercise prices:

Option Plan	Description	Grant date	Exercise price (\$)	Assessed fair value at grant date (\$)	Expiry date	Number at start of the year	Number granted during the year	Number exercised during the year	Number forfeited during the year	Number at end of the year	Number vested and exercisable at end of year
NOEP	2019 Special Award	28 May 19	—	4.41	4 Mar 25	—	59,368	—	—	59,368	—
NOEP	2019 Special Award	28 May 19	—	4.41	04 Feb 25	—	60,837	—	—	60,837	—
NOEP	2018 LTIS Tranche 1 – CEO	9 Nov 18	3.44	0.80	30 Sep 24	—	286,885	—	—	286,885	—
NOEP	2018 LTIS Tranche 1 – Others	4 Feb 19	3.44	0.86	30 Sep 24	—	1,105,411	—	(62,367)	1,043,044	—
NOEP	2018 LTIS Tranche 2 – CEO	9 Nov 18	—	1.24	30 Sep 24	—	20,900	—	—	20,900	—
NOEP	2018 LTIS Tranche 2 – Others	4 Feb 19	—	1.41	30 Sep 24	—	120,047	—	(12,107)	107,940	—
NOEP	2018 Deferred STI – CEO	9 Nov 18	—	3.21	31 Aug 22	—	16,502	—	—	16,502	—
NOEP	2018 Deferred STI – CEO	9 Nov 18	—	3.21	31 Aug 23	—	16,501	—	—	16,501	—
NOEP	2018 Deferred STI – Others	22 Nov 18	—	2.97	31 Aug 22	—	203,979	—	(22,976)	181,003	—
NOEP	2017 LTIS Tranche 1 – CEO	3 Nov 17	—	2.16	31 Aug 23	12,867	—	—	—	12,867	—
NOEP	2017 LTIS Tranche 2 – CEO	3 Nov 17	—	2.04	31 Aug 23	12,866	—	—	—	12,866	—
NOEP	2017 LTIS Tranche 1 – Others	9 Feb 18	—	1.95	31 Aug 23	204,104	—	—	(48,319)	155,785	—
NOEP	2017 LTIS Tranche 2 – Others	9 Feb 18	—	1.75	31 Aug 23	204,089	—	—	(48,314)	155,775	—
NOEP	2017 LTIS Tranche 1 – CEO	3 Nov 17	2.38	1.00	31 Aug 23	170,212	—	—	—	170,212	—
NOEP	2017 LTIS Tranche 2 – CEO	3 Nov 17	2.38	1.02	31 Aug 23	170,212	—	—	—	170,212	—
NOEP	2017 LTIS Tranche 1 – Others	9 Feb 18	2.38	0.84	31 Aug 23	204,830	—	—	(38,654)	166,176	—
NOEP	2017 LTIS Tranche 2 – Others	9 Feb 18	2.38	0.79	31 Aug 23	204,827	—	—	(38,654)	166,173	—
NOEP	2017 Deferred STI – CEO	3 Nov 17	—	2.81	31 Aug 21	45,513	—	—	—	45,513	45,513
NOEP	2017 Deferred STI – Others	11 Jan 18	—	2.75	31 Aug 21	249,347	—	(171,044)	(9,628)	68,675	68,675
NOEP	2016 Deferred STI	5 Jan 17	—	3.07	1 Sep 20	21,779	—	(8,134)	(822)	12,823	12,823
NOEP	2016 LTIS Tranche 1	5 Jan 17	2.85	1.00	31 Aug 22	115,519	—	—	(8,428)	107,091	—
NOEP	2016 LTIS Tranche 2	5 Jan 17	2.85	0.98	31 Aug 22	115,517	—	—	(8,427)	107,090	—
NOEP	2016 LTIS Tranche 3	5 Jan 17	2.85	1.05	31 Aug 22	231,038	—	—	(16,855)	214,183	—
NOEP	2016 LTIS Tranche 1	5 Jan 17	—	2.59	31 Aug 22	82,676	—	—	(17,568)	65,108	—
NOEP	2016 LTIS Tranche 2	5 Jan 17	—	2.33	31 Aug 22	82,662	—	—	(17,566)	65,096	—
NOEP	2016 LTIS Tranche 3	5 Jan 17	—	3.07	31 Aug 22	165,353	—	—	(35,137)	130,216	—
ESOP	2015 LTIS Tranche 1	4 Jan 16	—	1.46	31 Aug 21 ¹	483,265	—	(229,245)	(69,366)	184,654	184,654
ESOP	2015 LTIS Tranche 2	4 Jan 16	—	1.06	31 Aug 21 ¹	483,277	—	(213,777)	(69,366)	200,134	200,134
Total						3,259,953	1,890,430	(622,200)	(524,554)	4,003,629	511,799

1. At the 2017 Annual General Meeting held on 3 November 2017, the Company's shareholders approved a change to the terms of the 2015 LTIS, which provide for vesting on 31 August 2018, by removing the "deemed" exercise provisions and extending the expiry date for exercise of vested Performance Rights from 30 September 2018 to August 2021. All the terms and conditions of 2015 LTIS remained the same.

iv) Fair values

Fair values of performance rights and options granted

The assessed fair value on the date performance rights and options were granted was independently determined using an appropriate valuation model that takes into account relevant inputs including the exercise price, the term of the performance right or option, the impact of dilution, the share price at grant date, the expected price volatility of the underlying share, the expected dividend yield and the risk-free interest rate for the term of the performance right or option.

4 EMPLOYEE BENEFITS (continued)

The inputs used in the measurement of the fair values at the grant date are the following:

Plan	Description	Vesting Conditions	Exercise price (\$)	Grant date	Vesting date	Expiry date	Estimated share price at grant date (\$)	Valuation model	Expected price volatility of the Company's shares %	Expected dividend yield %	Risk-free interest rate %	Assessed fair value at grant date (\$)
Granted during the year:												
NOEP	2019 Special Award	Service	—	28 May 19	4 Mar 22	4 Mar 25	4.41	Black-Scholes	37.76	0.00	1.12	4.41
NOEP	2019 Special Award	Service	—	28 May 19	4 Mar 22	4 Mar 25	4.41	Black-Scholes	37.76	0.00	1.12	4.41
NOEP	2018 LTIS Tranche 1 – CEO	Absolute CAGR TSR performance and service	3.44	9 Nov 18	30 Sep 21	30 Sep 24	3.21	Monte Carlo	41.09	0.00	2.19	0.80
NOEP	2018 LTIS Tranche 1 – Others	Absolute CAGR TSR performance and service	3.44	4 Feb 19	30 Sep 21	30 Sep 24	3.46	Monte Carlo	40.09	0.00	1.74	0.86
NOEP	2018 LTIS Tranche 2 – CEO	Absolute CAGR TSR performance and service	—	9 Nov 18	30 Sep 21	30 Sep 24	3.21	Monte Carlo	37.34	0.00	2.19	1.24
NOEP	2018 LTIS Tranche 2 – Others	Absolute CAGR TSR performance and service	—	4 Feb 19	30 Sep 21	30 Sep 24	3.46	Monte Carlo	37.63	0.00	1.74	1.41
NOEP	2018 Deferred STI – CEO	Service	—	22 Nov 18	31 Aug 19	31 Aug 22	2.97	Black-Scholes	36.67	0.00	2.19	2.97
NOEP	2018 Deferred STI – CEO	Service	—	9 Nov 18	31 Aug 20	31 Aug 23	3.21	Black-Scholes	36.67	0.00	2.19	3.21
NOEP	2018 Deferred STI – Others	Service	—	22 Nov 18	31 Aug 19	31 Aug 22	2.97	Black-Scholes	37.34	0.00	2.14	2.97
Granted in prior periods and unexpired at report date:												
NOEP	2017 LTIS Tranche 1 – CEO	Relative TSR performance and service	—	3 Nov 17	31 Aug 20	31 Aug 23	2.81	Monte Carlo	35.00	0.00	1.90	2.16
NOEP	2017 LTIS Tranche 2 – CEO	Relative TSR performance and service	—	3 Nov 17	31 Aug 20	31 Aug 23	2.81	Monte Carlo	35.00	0.00	1.90	2.04
NOEP	2017 LTIS Tranche 1 – Others	Relative TSR performance and service	—	9 Feb 18	31 Aug 20	31 Aug 23	2.67	Monte Carlo	34.00	0.00	2.10	1.95
NOEP	2017 LTIS Tranche 2 – Others	Relative TSR performance and service	—	9 Feb 18	31 Aug 20	31 Aug 23	2.67	Monte Carlo	34.00	0.00	2.10	1.75
NOEP	2017 LTIS Tranche 1 – CEO	Relative TSR performance and service	2.38	3 Nov 17	31 Aug 20	31 Aug 23	2.81	Monte Carlo	35.00	0.00	2.10	1.00
NOEP	2017 LTIS Tranche 2 – CEO	Relative TSR performance and service	2.38	3 Nov 17	31 Aug 20	31 Aug 23	2.81	Monte Carlo	35.00	0.00	2.10	1.02
NOEP	2017 LTIS Tranche 1 – Others	Relative TSR performance and service	2.38	9 Feb 18	31 Aug 20	31 Aug 23	2.67	Monte Carlo	35.00	0.00	2.30	0.84
NOEP	2017 LTIS Tranche 2 – Others	Relative TSR performance and service	2.38	9 Feb 18	31 Aug 20	31 Aug 23	2.67	Monte Carlo	35.00	0.00	2.30	0.79
NOEP	2017 Deferred STI – CEO	Service	—	3 Nov 17	31 Aug 18	31 Aug 21	2.81	Black-Scholes	31.00	0.00	1.70	2.81
NOEP	2017 Deferred STI – Others	Service	—	11 Jan 18	31 Aug 18	31 Aug 21	2.75	Black-Scholes	30.00	0.00	1.70	2.75

Notes to the consolidated financial statements

4 EMPLOYEE BENEFITS (continued)

Plan	Description	Vesting Conditions	Exercise price (\$)	Grant date	Vesting date	Expiry date	Estimated share price at grant date (\$)	Valuation model	Expected price volatility of the Company's shares %	Expected dividend yield %	Risk-free interest rate %	Assessed fair value at grant date (\$)
NOEP	2016 LTIS Tranche 1	Relative TSR performance and service	2.85	5 Jan 17	31 Aug 19	31 Aug 22	3.07	Monte Carlo	35.80	0.00	2.00	1.00
NOEP	2016 LTIS Tranche 2	Relative TSR performance and service	2.85	5 Jan 17	31 Aug 19	31 Aug 22	3.07	Monte Carlo	35.80	0.00	2.00	0.98
NOEP	2016 LTIS Tranche 3	Pre-tax EPS and service	2.85	5 Jan 17	31 Aug 19	31 Aug 22	3.07	Black-Scholes	35.80	0.00	2.00	1.05
NOEP	2016 Deferred STI	Service	—	5 Jan 17	1 Sep 17	1 Sep 20	3.07	Black-Scholes	35.80	0.00	2.00	3.07
NOEP	2016 LTIS Tranche 1	Relative TSR performance and service	—	5 Jan 17	31 Aug 19	31 Aug 22	3.07	Monte Carlo	35.80	0.00	2.00	2.59
NOEP	2016 LTIS Tranche 2	Relative TSR performance and service	—	5 Jan 17	31 Aug 19	31 Aug 22	3.07	Monte Carlo	35.80	0.00	2.00	2.33
NOEP	2016 LTIS Tranche 3	Pre-tax EPS and service	—	5 Jan 17	31 Aug 19	31 Aug 22	3.07	Black-Scholes	35.80	0.00	2.00	3.07
ESOP	2015 LTIS Tranche 1	Relative TSR performance and service	—	4 Jan 16	31 Aug 18	31 Aug 21	1.67	Monte Carlo	37.50	0.00	2.00	1.46
ESOP	2015 LTIS Tranche 2	Relative TSR performance and service	—	4 Jan 16	31 Aug 18	31 Aug 21	1.67	Monte Carlo	37.50	0.00	2.00	1.06

Fair values of shares granted

The issue price for shares granted is calculated as the 5-day volume weighted average market price of shares of the Company on the Australian Securities Exchange as at close of trading on the date the shares were granted. The fair value of shares granted is taken to be the issue price.

v) Recognition of expenses

Recognition of expense of performance rights and options granted

The fair value of performance rights and options granted is recognised as an employee expense with a corresponding increase in equity, on a straight line monthly basis over the vesting period in which the performance and/or service conditions are fulfilled after which the employees become unconditionally entitled to them. The cumulative expense recognised for share-based payments at each reporting date until the vesting date reflects the extent to which the vesting period has ended and the Group's best estimate of the number of equity instruments that will ultimately vest. The expense or credit for a period represents the movement in cumulative expense recognised as at the beginning and end of the period. No expense is recognised for awards that do not ultimately vest, except for equity-settled transactions for which vesting are conditional upon a market or non-vesting condition. These are treated as vesting irrespective of whether or not the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

Total expenses arising from share-based payment transactions recognised during the period as part of employee benefit expense were 1,616,000 (2018: \$2,187,000).

During the financial year there were no shares directly granted under the NOEP (2018: Nil).

vi) Summary of shares issued by the trustee

Shares issued on the exercise of performance rights and options granted to employees are initially held by the trustee of the NOEP or ESOP, Sargon CT Pty Ltd.

Following is a reconciliation of shares held by the trustee of the NOEP and ESOP:

	2019 Number of shares	2018 Number of shares
Employee shares on issue at 1 July	1,106,449	2,153,926
Issued on exercise of performance rights and options during the year	622,200	1,612,124
On market purchase of shares on exercise of performance rights during the year	—	36,823
Withdrawn during the year	(907,216)	(2,696,424)
Employee shares on issue at 30 June	821,433	1,106,449

5 ASSETS AND LIABILITIES RELATED TO CONTRACTS WITH CUSTOMERS

5.1 Contract balances

The Group's accounting policy relating to trade and other receivables is detailed in note 6.2.

Costs to obtain customer contracts include sales commissions paid to employees and are amortised over the customer contract period. Costs to obtain customer contracts expected to be amortised within 12 months of the reporting period are classified as current.

Assets related to contracts with customers are as follows:

	2019			2018		
	Current \$'000	Non-current \$'000	Total \$'000	Current \$'000	Non-current \$'000	Total \$'000
Trade and other receivables	19,700	—	19,700	8,613	—	8,613
Cost to obtain customer contracts	280	214	494	—	—	—
Total assets related to contracts with customers	19,980	214	20,194	8,613	—	8,613

Contract liabilities are the obligation to transfer goods and services to a customer for which the entity has received consideration (or an amount of consideration is due) from the customer. Contract liabilities expected to be realised within 12 months of the reporting period are classified as current.

Liabilities related to contracts with customers are as follows:

	2019			2018		
	Current \$'000	Non-current \$'000	Total \$'000	Current \$'000	Non-current \$'000	Total \$'000
Contract liabilities	4,012	2,532	6,544	2,932	1,678	4,610
Total liabilities related to contracts with customers	4,012	2,532	6,544	2,932	1,678	4,610

	2019 \$'000	2018 \$'000
Revenue recognised that was included in the contract liability balance at the beginning of the period	3,044	1,697

6 FINANCIAL ASSETS AND FINANCIAL LIABILITIES

6.1 Cash and cash equivalents

For cash flow statement presentation purposes, cash and cash equivalents includes cash on hand, deposits held at call with financial institutions and other short-term, highly liquid investments presented at market value that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

i) Cash and cash equivalents

Cash and cash equivalents at the reporting date as shown in the consolidated statements of cash flows and financial position are as follows:

	2019 \$'000	2018 \$'000
Cash at bank and on hand	11,626	13,812
Deposit on call	1,054	2,130
Short-term deposits	59,500	53,491
Total cash and cash equivalents	72,180	69,433

Cash term investments which are highly liquid irrespective of their maturity dates are classified as current assets at market value as they may not necessarily be held by the Company for their full term.

The Group's exposure to interest rate risk is discussed in note 8(a)(ii). The maximum exposure to credit risk at the reporting date is the carrying amount of each class of cash and cash equivalents mentioned above.

Notes to the consolidated financial statements

6 FINANCIAL ASSETS AND FINANCIAL LIABILITIES (continued)

ii) Reconciliation of profit before income tax to net cash inflow from operating activities

	2019 \$'000	2018 \$'000
Operating profit before income tax	16,830	5,583
Adjustment for:		
Depreciation and amortisation	2,140	1,499
Share-based payments	1,616	2,187
Borrowing costs	36	58
Gain on disposal of property, plant and equipment	(14)	(2)
Income tax paid	(139)	(148)
Unrealised gain on foreign exchange movements	(1,874)	(1,892)
Changes in assets and liabilities		
(Increase)/decrease in derivative financial instruments	(441)	735
(Increase)/decrease in trade and other receivables	(10,909)	586
(Increase)/decrease in inventories	(6,671)	(1,963)
(Increase)/decrease in prepayments and other current assets	(888)	33
(Increase)/decrease in other non-current assets	(5)	(10)
Increase/(decrease) in trade and other payables	2,538	539
Increase/(decrease) in contract balances	1,955	1,533
Increase/(decrease) in employee benefit liabilities	478	295
Increase/(decrease) in provisions	174	(24)
Net cash provided by operating activities	4,826	9,009

iii) Credit standby arrangements unused

	2019 \$'000	2018 \$'000
Facility limits:		
Borrowing facilities	620	2,115
Guarantee facility	475	475
Facility remaining available:		
Borrowing facilities	99	1,170
Guarantee facility	14	14

The terms of the borrowing facility are described in note 6.5

6.2 Trade and other receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. Loans and other receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. If collection of the amounts is expected in one year or less; they are classified as current assets, otherwise they are presented as non-current assets. Trade receivables are measured at amortised cost using the effective interest rate method. Trade receivables generally have 30 to 60 days credit terms and therefore are all classified as current.

Due to the short-term nature of the receivables, their carrying amount is assumed to be the same as their fair value.

6 FINANCIAL ASSETS AND FINANCIAL LIABILITIES (continued)

Information about the impairment of trade and other receivables, their credit quality and the Group's exposure to credit risk, foreign currency risk and interest rate risk is provided in note 8.

	2019 \$'000	2018 \$'000
Trade receivables net of allowance for impairment loss	18,620	7,525
GST/VAT receivables	658	658
Interest and other receivables	422	430
Total trade and other receivables	19,700	8,613

6.3 Derivative financial instruments

The Group uses derivative financial instruments (foreign currency contracts) to hedge its foreign currency risks. Such derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

The fair values of foreign currency contracts are calculated by reference to current forward exchange rates for contracts with similar maturity profiles.

Any gains or losses arising from changes in the fair value of derivatives are taken directly to the profit or loss statement, except for the effective portion of cash flow hedges, which is recognised in other comprehensive income.

For the purposes of hedge accounting, hedges are classified as:

- Fair value hedges, when they hedge the exposure to changes in the fair value of a recognised asset or liability; or
- Cash flow hedges, when they hedge the exposure to variability in cash flows that is attributable either to a particular risk associated with a recognised asset or liability or to a forecast transaction.

Hedges that meet the strict criteria for hedge accounting are accounted as follows:

- For cash flow hedges, the effective portion of the gain or loss on the hedging instrument is recognised directly in equity, while the ineffective portion is recognised in the profit or loss statement.
- For fair value hedges, the carrying amount of the hedged item is adjusted for gains and losses attributable to the risk being hedged and the derivative is remeasured to fair value. Gains and losses from both are taken to the profit or loss statement.
- If the forward exchange contract no longer meets the criteria for hedge accounting, expires, is terminated or exercised, then hedge accounting is discontinued prospectively. The cumulative gain or loss previously recognised in equity remains there until the forecast transaction occurs or when cash flows arising from the transactions are received.
- For cash flow hedges, the associated cumulative gain or loss is removed from equity and recognised in the statement of profit or loss in the same period the hedged transactions affect the profit or loss on the same line item as the hedged transactions.

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

- Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities.
- Level 2: other techniques for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly.
- Level 3: techniques that use inputs that have a significant effect on the recorded fair value that are not based on observable market data.

All of the Group's foreign exchange forward contracts and options were valued using market comparison technique (Level 2) and there were no transfers between levels during the year. The fair values are based on third party independent valuations. Similar contracts are traded in an active market and the independent valuations reflect the actual transactions in similar instruments.

	2019			2018		
	Current \$'000	Non-current \$'000	Total \$'000	Current \$'000	Non-current \$'000	Total \$'000
Derivative financial assets as follows:						
Derivative financial instruments	189	237	426	158	—	158
Derivative financial liabilities as follows:						
Derivative financial instruments	287	160	447	684	—	684

Notes to the consolidated financial statements

6 FINANCIAL ASSETS AND FINANCIAL LIABILITIES (continued)

6.4 Trade and other payables

Trade and other payables are carried at amortised cost. These amounts represent liabilities for goods and services provided to the Group prior to the end of financial year which are unpaid and arise when the Group becomes obliged to make future payments in respect of the purchase of these goods and services. The amounts are unsecured and are usually paid within 60 days of recognition. Amounts due to be settled within 12 months after the reporting period are classified as current.

The carrying amounts of trade and other payables are assumed to be the same as their fair values, due to their short-term nature.

	2019			2018		
	Current \$'000	Non-current \$'000	Total \$'000	Current \$'000	Non-current \$'000	Total \$'000
Trade payables	3,225	—	3,225	1,836	—	1,836
Lease straight-lining liabilities	75	121	196	48	195	243
Other payables	3,704	—	3,704	2,487	—	2,487
Total trade and other payables	7,004	121	7,125	4,371	195	4,566

6.5 Borrowings

Loans and borrowings are recognised initially at fair value less attributable transaction costs. Subsequently loans and borrowings are stated at amortised cost using the effective interest method. Amounts due to be settled within 12 months after the reporting period are classified as current.

Borrowing costs are expensed in the period they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

	2019 \$'000	2018 \$'000
Finance leases – secured		
Current	445	424
Non-current	76	522
Total borrowings	521	946

On 21 September 2015, the Company entered into a finance lease arrangement with its bank for the leasehold improvements of its global corporate and manufacturing facility in Lane Cove, NSW, Australia for \$2,048,000 repayable in fixed monthly instalments for a period of 5 years at 4.92% per annum. This borrowing is secured by the leasehold improvements included in property, plant and equipment.

Finance lease liabilities at the end of the year are as follows:

	2019		2018	
	Minimum payments \$000	Present value of payments \$000	Minimum payments \$000	Present value of payments \$000
Within 1 year	461	445	461	424
After 1 year but not more than 5 years	77	76	538	522
Total minimum lease payments	538	521	999	946
Less future finance charges	(17)	—	(53)	—
Present value of minimum lease payments	521	521	946	946

	2019 \$'000	2018 \$'000
Finance leases liability at 1 July	946	1,350
Interest charged	36	58
Repayment of borrowings	(425)	(404)
Interest paid	(36)	(58)
Finance leases liability at 30 June	521	946

The carrying value of the finance lease liability is considered to approximate its fair value because the interest payable on this borrowing is close to current market rates.

7 OPERATING ASSETS AND LIABILITIES

7.1 Inventories

Inventories are measured at the lower of cost and net realisable value. Cost includes expenditure incurred in acquiring the inventories and bringing them to their existing condition and location. In the case of manufactured inventory and work in progress, cost includes materials, labour and an appropriate level of production overheads based on normal operating capacity.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion, selling, marketing and distribution expenses.

	2019 \$'000	2018 \$'000
Raw materials and stores	7,763	3,861
Work in progress	168	386
Finished goods	6,087	4,689
Total inventories	14,018	8,936

Inventories recognised as an expense (cost of sales) during the year ended 30 June 2019 amounted to \$16,978,000 (2018: \$12,531,000).

Management has performed an assessment of inventories held for the year ended 30 June 2019 including the impact of the introduction of the second generation of trophon® in the current year and recognised write-downs during the year of \$475,000 (2018: \$592,000). The expense has been included in selling and general expenses in the profit or loss statement.

7.2 Property, plant and equipment

i) Owned assets

All property, plant and equipment is stated at historical cost less accumulated depreciation and impairment losses. Historical cost includes expenditure that is directly attributable to the acquisition of the items. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of any component accounted for as a separate asset is derecognised when it is replaced. All other repairs and maintenance are charged to the profit or loss statement during the reporting period in which they are incurred. Production tooling used to manufacture component parts qualifies as property, plant and equipment when the Company expects to use it for more than one period.

Gains and losses on disposals are determined by comparing proceeds with carrying amounts. These are included in the profit or loss statement.

ii) Leased assets

Finance leases that transfer to the Group substantially all the risks and benefits incidental to ownership of the leased item, are capitalised at the commencement of the lease at the fair value of the leased property or, if lower, at the present value of the minimum lease payments. Lease payments are apportioned between finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are recognised as finance costs in the profit or loss statement.

Leases in which a significant portion of the risks and rewards of ownership are not transferred to the Group as lessee are classified as operating leases. Payments made under operating leases, net of any incentives received from the lessor, are expensed on a straight-line basis over the term of the lease. Minimum lease payments include fixed rate increases.

iii) Depreciation

All assets have limited useful lives and are depreciated using the straight line method over their estimated useful lives, or in the case of leasehold improvements, over the estimated useful life or lease term, whichever is shorter, taking into account residual values. Depreciation is expensed. The depreciation rates or useful lives used in the current and comparative years are as follows: leasehold improvements over the lease term; and plant and equipment 2 to 7 years.

The assets' residual values, useful lives and depreciation methods are reviewed prospectively and adjusted, if appropriate, at least annually.

iv) Impairment

The Group assesses at each reporting date whether there is an indication that an asset may be impaired. Non-financial assets, other than intangibles, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the assets' carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash inflows which are largely independent of the cash inflows from other assets or groups of assets (cash-generating units).

Non-financial assets, other than goodwill, that suffered impairment are reviewed for possible reversal of the impairment at each reporting date.

Notes to the consolidated financial statements

7 OPERATING ASSETS AND LIABILITIES (continued)

Total property, plant and equipment at net book amount

	Leasehold improvements \$'000	Plant and equipment \$'000	Capital work in progress \$'000	Total \$'000
Year ended 30 June 2018				
Opening net book amount	1,644	1,157	663	3,464
Additions	60	2,875	139	3,074
Retirement and others	—	(6)	—	(6)
Transfers	—	650	(650)	—
Depreciation charge	(404)	(870)	—	(1,274)
Foreign currency translation effect (net)	2	8	—	10
Closing net book amount at 30 June 2018	1,302	3,814	152	5,268
At 30 June 2018				
Cost or fair value	2,495	8,278	152	10,925
Impairment	—	(45)	—	(45)
Accumulated depreciation	(1,193)	(4,419)	—	(5,612)
Net book amount at 30 June 2018	1,302	3,814	152	5,268
Year ended 30 June 2019				
Opening net book amount	1,302	3,814	152	5,268
Additions	295	2,404	589	3,288
Retirement and others	—	(20)	—	(20)
Transfers	—	157	(157)	—
Depreciation charge	(448)	(1,375)	—	(1,823)
Foreign currency translation effect (net)	1	10	5	16
Closing net book amount at 30 June 2019	1,150	4,990	589	6,729
At 30 June 2019				
Cost or fair value	2,791	10,829	589	14,209
Impairment	—	(45)	—	(45)
Accumulated depreciation	(1,641)	(5,794)	—	(7,435)
Net book amount at 30 June 2019	1,150	4,990	589	6,729

7.3 Intangible assets

i) Research and development

Research and development expenditure is expensed as incurred except that costs incurred on development projects, relating to the design and testing of new or improved products, are recognised as intangible assets when it is probable that the project will, after considering its commercial and technical feasibility, be completed and generate future economic benefits and its costs can be measured reliably.

ii) Patents and trademarks

The costs of registering and protecting patents and trademarks are recognised as intangible assets when it is probable that the patent or trademark will, after considering its commercial and technical feasibility, be completed and generate future economic benefits and its cost can be measured reliably. Otherwise, these are expensed as incurred.

iii) ERP system and computer software

The expenditure incurred on the Group's Enterprise Resource Planning (ERP) system and computer software and the costs necessary for the implementation of the system are recognised as an intangible asset, to the extent Nanosonics controls future economic benefits as a result of the costs incurred, and are stated at cost less accumulated amortisation. Costs include expenditure that is directly attributable to the development and implementation of the system.

7 OPERATING ASSETS AND LIABILITIES (continued)

iv) Amortisation

Amortisation is calculated to expense the cost of the intangible assets less its estimated residual values on a straight line basis over their estimated useful lives. The estimated useful lives for the current and comparative years are as follows: development costs 5 years and ERP system and computer software 3 years.

Amortisation is recognised in the profit or loss statement from the date the asset is available for use unless their lives are indefinite. Intangible assets with an indefinite useful life are tested annually for impairment.

v) Impairment

Intangible assets are tested annually for impairment or more frequently if events or changes in circumstances indicate that they might be impaired. No impairment of intangibles were assessed during the period (2018: Nil).

Total intangible assets at net book amount

	Development Costs \$'000	ERP and Computer Software \$'000	Total \$'000
Year ended 30 June 2018			
Opening net book amount	—	281	281
Additions	—	507	507
Amortisation	—	(225)	(225)
Foreign currency translation effect (net)	—	—	—
Closing net book amount at 30 June 2018	—	563	563
At 30 June 2018			
Cost	201	1,977	2,178
Accumulated depreciation	(201)	(1,414)	(1,615)
Net book amount at 30 June 2018	—	563	563
Year ended 30 June 2019			
Opening net book amount	—	563	563
Additions	—	551	551
Amortisation	—	(317)	(317)
Foreign currency translation effect (net)	—	2	2
Closing net book amount at 30 June 2019	—	799	799
At 30 June 2019			
Cost or fair value	201	2,530	2,731
Accumulated depreciation	(201)	(1,731)	(1,932)
Net book amount at 30 June 2019	—	799	799

7.4 Provisions

i) General

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reasonably estimated. Provisions are not recognised for future operating losses.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the reporting date. The discount rate used to determine the present value reflects current market assessments of the time value of money and the risks specific to the liability. An increase in the provision due to the passage of time is recognised as interest expense.

Notes to the consolidated financial statements

7 OPERATING ASSETS AND LIABILITIES (continued)

ii) Provision for warranty

Provision for warranty related costs are made in respect of the Group's estimated liability on all products sold or services provided under warranty at the reporting date. The provision is measured at current values estimated to be required to settle the warranty obligation. The initial estimate of warranty-related costs is revised annually.

iii) Provision for make good

The Group has operating leases over its offices that require the premises to be returned to the lessor in their original condition.

The operating lease payments do not include an element for repairs or make good. A provision for make good lease costs is recognised at the time it is determined that it is probable that such costs will be incurred in a future year, measured at the expected cost of returning the asset to the lessor in its original condition. An offsetting asset of the same value is also recognised and is classified in property, plant and equipment. This asset is amortised to the profit or loss statement over the life of the lease.

a. Provisions as at the reporting date

	2019			2018		
	Current \$'000	Non-current \$'000	Total \$'000	Current \$'000	Non-current \$'000	Total \$'000
Provision for warranty	678	—	678	505	—	505
Make good provision	—	75	75	—	75	75
Total provisions	678	75	753	505	75	580

b. Movements in provisions

	Provision for warranty \$'000	Make good provision \$'000	Total \$'000
Carrying amount at the beginning of the year	505	75	580
Additional provisions recognised	325	—	325
Amounts used during the period	(152)	—	(152)
Carrying amount at end of the year	678	75	753

The Group has recognised a provision for warranty consistent with the policy applied in prior periods. The Group has made assumptions in relation to the values estimated to be required to settle the warranty obligation on all products under warranty at the balance date.

8 FINANCIAL RISK MANAGEMENT

The Group is exposed to a variety of financial risks, including market risk (comprising foreign currency risk and interest rate risk), credit risk and liquidity risk.

The Board of Directors has overall responsibility for Group's risk management framework. Responsibility for the development and implementation of controls to address risks is assigned to the Audit and Risk Committee. The responsibility is supported by the development of standards, policies and procedures for the management of these risks.

The financial risk management policies of the Group are consistent with prior periods. Management have identified that foreign currency risk and credit risk on receivables are material to the Group.

a) Market risk

Market risk is the risk that changes in market prices will affect the Group's financial performance.

i) Foreign currency risk

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Group's exposure to the risk of changes in foreign exchange rates relates primarily to the Group's operating activities (when revenue or expenses are denominated in a currency other than the Group's functional currency) and the Group's net investments in foreign subsidiaries. The Group enters into foreign currency contracts to mitigate its foreign currency risk on its net cash flows.

8 FINANCIAL RISK MANAGEMENT (continued)

Exposure

The Group's primary exposure to foreign currency risk in the consolidated balance sheet at the end on the reporting period mainly comprised:

	2019				2018			
	USD \$'000	GBP £'000	EUR € '000	CAD \$'000	USD \$'000	GBP £'000	EUR € '000	CAD \$'000
Cash and cash equivalents	2,095	2,260	488	898	6,951	603	242	1,043
Trade and other receivables	12,977	283	310	270	4,098	450	360	335
Trade and other payables	(952)	(118)	(203)	(166)	(486)	(178)	(230)	(106)
	14,120	2,425	595	1,002	10,563	875	372	1,272
Foreign currency forward contracts and options to buy/sell USD	19,420	—	—	—	9,789	—	—	—

Sensitivity

The following table demonstrates the sensitivity to a reasonable possible change in the USD, EUR, GBP and CAD against the AUD, with all other variables held constant.

	Impact on post-tax profit		Impact on other components of equity	
	2019 '000	2018 '000	2019 '000	2018 '000
Change in USD rate				
Increase 5%	2,124	1,410	(606)	(520)
Decrease 5%	(2,222)	(1,333)	549	470
Change in GBP rate				
Increase 5%	608	336	(638)	(399)
Decrease 5%	(550)	(304)	577	361
Change in EUR rate				
Increase 5%	35	90	—	(98)
Decrease 5%	(32)	(81)	—	88
Change in CAD rate				
Increase 5%	146	131	(151)	(118)
Decrease 5%	(132)	(118)	137	107

Post-tax profit and other components of equity is most sensitive to movements in the Australian dollar/US dollar exchange rates because of the increased amount of US dollar denominated sales, trade receivables and bank balances. The sensitivity analysis above takes into account foreign currency denominated intercompany receivables and payables which do not form part of a net investment in foreign operations as although intercompany balances are eliminated in the consolidated balance sheet, the effect on profit or loss of their revaluation is not fully eliminated. The Group's exposure to movement in other foreign currencies are not material.

Notes to the consolidated financial statements

8 FINANCIAL RISK MANAGEMENT (continued)

ii) Interest rate risk

The Group's main interest rate risk arises from the cash reserves in the operating bank accounts and short-term deposits, which expose the Group to cash flow interest rate risk.

The Group's exposure to interest rate risk is summarized below:

2019	Notes	Floating interest rate \$'000	Fixed interest rate maturing in:				Total \$'000
			1 year or less \$'000	Over 1 to 5 years \$'000	More than 5 years \$'000	Non-interest bearing \$'000	
Financial assets							
	6.1	12,680	59,500	—	—	—	72,180
	6.2	—	—	—	—	19,700	19,700
	6.3	—	—	—	—	426	426
Total financial assets		12,680	59,500	—	—	20,126	92,306
Weighted average interest rate		0.13%	2.43%				
Financial liabilities							
	6.4	—	—	—	—	7,125	7,125
	6.5	—	445	76	—	—	521
	6.3	—	—	—	—	447	447
Total financial liabilities		—	445	76	—	7,572	8,093
Weighted average interest rate		—	4.92%	4.92%	—	—	—
Net financial assets/(liabilities)		12,680	59,055	(76)	—	12,554	84,213

2018	Notes	Floating interest rate \$'000	Fixed interest rate maturing in:				Total \$'000
			1 year or less \$'000	Over 1 to 5 years \$'000	More than 5 years \$'000	Non-interest bearing \$'000	
Financial assets							
	6.1	15,942	53,491	—	—	—	69,433
	6.2	—	—	—	—	8,613	8,613
	6.3	—	—	—	—	158	158
Total financial assets		15,942	53,491	—	—	8,771	78,204
Weighted average interest rate		0.22%	2.63%	—	—		
Financial liabilities							
	6.4	—	—	—	—	4,566	4,566
	6.5	—	424	522	—	—	946
	6.3	—	—	—	—	684	684
Total financial liabilities		—	424	522	—	5,250	6,196
Weighted average interest rate		—	4.92%	4.92%	—	—	—
Net financial assets/(liabilities)		15,942	53,067	(522)	—	3,521	72,008

Sensitivity

The profit or loss statement is sensitive to higher/lower interest income from cash and cash equivalents as a result of changes in interest rates. For the year ended 30 June 2019, it is estimated that a general increase of 25 basis points in interest rates would have increased the Group's profit after tax and equity by \$124,000 (2018: \$116,000). A decrease of 25 basis points in interest rates would have had the equal but opposite effect on the Group's profit after tax and equity.

8 FINANCIAL RISK MANAGEMENT (continued)

b) Credit risk

Credit risk is the risk of financial loss to Nanosonics if a customer or counterparty to a financial instrument fails to meet its contractual obligations. Credit risk arises from cash and cash equivalents, favourable derivative financial instruments, deposits with banks and financial institutions, and credit exposures to customers. The maximum exposure to credit risk as at the reporting date is the carrying amount of the financial assets as described in note 6. The Company exposure to credit risk is influenced mainly by the geographical location, the type and characteristics of individual customers.

Maximum exposure to credit risk for trade receivable by geographical region was as follows:

	2019 \$'000	2018 \$'000
North America	16,616	5,739
Europe and Middle East	551	976
Asia Pacific	1,453	810
	18,620	7,525

Maximum exposure to credit risk for trade receivable by type of counterparty was as follows:

	2019 \$'000	2018 \$'000
Distributors	12,602	2,270
End-user customers	6,018	5,255
	18,620	7,525

As at 30 June 2019, GE Healthcare (worldwide) accounted for over 65% of the trade receivables (2018: GE Healthcare Group accounted for over 23% of the trade receivables).

Collateral is not held as security, nor is it the Group's policy to transfer (on-sell) receivables to special purpose entities.

i) Risk management

Credit risk is managed on a group basis. The Group may only invest surplus funds in deposits and floating rate notes offered by any major bank approved by the Board with no more than 50% held at any one bank.

Customer credit risk is managed subject to the Group's established policy, procedures and control relating to credit risk management. The Group performs credit assessments of its customers prior to entering into any sales agreements. The Group utilises an external credit rating agency to assess the credit worthiness of its customers.

In North America and Europe, outstanding customer receivables are regularly monitored and are generally covered by credit insurance.

As a result, the Group believes that its accounts receivable credit risk exposure is mitigated and it has not experienced significant write-downs in its accounts receivable balances.

The credit risk arising from derivative financial instruments is not significant.

ii) Credit quality

The credit quality of financial assets that are neither past due nor impaired can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates.

An analysis of the credit policy of trade receivables that are neither past due nor impaired as follows:

	2019 \$'000	2018 \$'000
External financial ratings at least A-2 from Standard and Poor's	9,539	2,057
Covered by credit insurance	3,853	3,267
Other customers:		
4 or more years trading history with the Group	944	708
Less than 4 years of trading history with the Group	64	385
	14,400	6,417

Notes to the consolidated financial statements

8 FINANCIAL RISK MANAGEMENT (continued)

Impaired trade receivables

Individual receivables which are known to be uncollectible are written off by reducing the carrying amount directly. The other receivables are assessed collectively based on expected losses from the time a loan is originated, based on the deterioration of credit risks since initial recognition. For these receivables the estimated impairment losses are recognised in a separate provision for impairment. The Group considers that there is evidence of impairment if any of the following indicators are present:

- significant financial difficulties of the debtor;
- probability that the debtor will enter bankruptcy or financial reorganisation; or
- default or delinquency in payments.

Receivables for which an impairment provision was recognised are written off against the provision when there is no expectation of recovering additional cash.

Impairment losses are recognised in the profit or loss statement within selling and general expenses. Subsequent recoveries of amounts previously written off are credited against selling and general expenses.

As at 30 June 2019, trade receivables with a nominal value of \$29,000 (2018: \$9,000) were considered impaired and fully provided for.

The movement in provision for impairment in respect of trade and other receivables during the year was as follows:

	2019 \$'000	2018 \$'000
Balance at 1 July	9	21
Provision for impairment recognised during the year	22	—
Receivables written off during the year as uncollectible	—	(6)
Unused amount reversed	(2)	(6)
Balance at 30 June	29	9

Past due not impaired

As at 30 June 2019, trade receivables of \$4,220,000 (2018: \$1,108,000) were past due but not impaired. These relate to a number of independent customers for whom there is no recent history of default.

The aging analysis of trade receivables is as follows:

	2019 \$'000	2018 \$'000
Neither past due nor impaired	14,400	6,417
Past due but not impaired		
< 30 days	2,843	787
30-60 days	695	240
>60 days	682	81
	18,620	7,525

c) Liquidity risk

The Group manages liquidity risk by continuously monitoring forecast and actual cash flows and matching the maturity profiles of financial assets and liabilities. Surplus funds are invested in short and medium-term instruments which are tradeable in highly liquid markets.

At the end of the reporting period the Group held short-term deposits of \$59,500,000 (2018: \$53,491,000) that are expected to readily generate cash inflows for managing liquidity risk.

8 FINANCIAL RISK MANAGEMENT (continued)

Maturities of financial liabilities

The table below analyses the Group's financial liabilities into relevant maturity groupings based on their contractual maturities for financial liabilities.

The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

	Less than 3 months \$'000	3 to 12 months \$'000	1 to 5 years \$'000	Over 5 years \$'000	Tota \$'000
2019					
Trade and other payables	6,929	75	121	—	7,125
Borrowings	109	336	76	—	521
Derivative financial instruments	125	162	160	—	447
Total financial liabilities	7,163	573	357	—	8,093
2018					
Trade and other payables	4,323	48	195	—	4,566
Borrowings	104	320	522	—	946
Derivative financial instruments	288	396	—	—	684
Total financial liabilities	4,715	764	717	—	6,196

9 CAPITAL STRUCTURE

9.1 Capital and reserves

a) Contributed equity

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Ordinary shares carry one vote per share and entitle the holder to participate in dividends and the proceeds on winding up of the Company in proportion to the number of shares held. On a show of hands, every ordinary shareholder present at a meeting in person or by proxy is entitled to vote and upon a poll each share is entitled to one vote. Ordinary shares have no par value, are fully paid and the Company does not have a limited amount of authorised capital.

Movements in ordinary share capital:

	Number of shares	\$'000
Balance at 1 July 2017	297,732,955	112,713
Exercise of options and performance rights – proceeds received	1,612,124	—
Balance at 30 June 2018	299,345,079	112,713
Exercise of options and performance rights – proceeds received	622,200	—
Balance at 30 June 2019	299,967,279	112,713

b) Reserves

i) Share-based payments reserve

The share-based payments reserve is used to recognise the fair value at grant date of performance rights and options issued as detailed in note 4.3 less any payments made to meet the company's obligations through the acquisition of shares on market, together with income taxes on such payments.

ii) Foreign currency translation reserve

The foreign currency translation reserve records the exchange differences arising on translation of the financial statements of the foreign subsidiaries where the functional currency is different from the presentation currency of the reporting entity as detailed in note 1.2 (e).

iii) Hedging reserve

The hedging reserve comprises the effective portion of the cumulative net change in the fair value of cash flow hedging instruments related to underlying transactions that have not yet occurred.

Notes to the consolidated financial statements

9 CAPITAL STRUCTURE (continued)

9.2 Capital management

The Board and management controls the capital of the Group to ensure that the Group can fund its operations and continue as a going concern.

The Group's capital includes ordinary share capital and financial liabilities supported by financial assets. There are no externally imposed capital requirements. The Board and management effectively manages the Group's capital by assessing the Group's financial risks and adjusting its capital structure in response to changes in these risks and the risk in the market. These responses include the management of share issues.

There have been no changes in the strategy adopted by management to control the capital of the Group since the prior year.

10 OTHER NOTES

10.1 Commitments

Non-cancellable operating leases

The Group leases offices and warehouses under non-cancellable operating leases. The leases have varying terms, escalation clauses and renewal rights. On renewal, the terms of the leases are renegotiated.

Commitments for minimum lease payments in relation to non-cancellable operating leases are payable as follows:

	2019 \$'000	2018 \$'000
Within 1 year	1,177	1,066
1 year or later and no later than 5 years	1,340	2,099
5 years or later	—	—
	2,517	3,165

Capital commitments

As at 30 June 2019, the Group had commitments to purchase plant and equipment of \$1,091,000 (2018: \$399,000). These commitments are not recognised as liabilities as the relevant assets have not yet been received.

10.2 Related party transactions

a) Transactions with related parties

Note 10.3 provides the information about the Group's structure including the details of the subsidiaries and the parent entity.

i) Directors and Key Management Personnel compensation

	2019 \$	2018 \$
Director fees	506,849	506,849
Short-term employee benefits	2,454,394	1,715,758
Long-term benefits	225,130	157,378
Post-employment benefits	157,996	143,384
Termination benefits	—	238,000
Share-based payments	850,655	953,865
Total Directors and Key Management Personnel compensation	4,195,024	3,715,234

Detailed remuneration disclosures are provided in the Remuneration Report on pages 35 to 54.

10 OTHER NOTES (continued)

ii) Transactions with other related parties

Certain Directors and Key Management Personnel, or their personally-related entities (Related Parties), hold positions in other entities that result in them having control or significant influence over the financial or operating policies of those entities.

Details of the type of transactions that were entered into with Related Parties are as follows:

Related Party	Related entity	Transactions	2019 \$	2018 \$
Maurie Stang	Gryphon Capital Pty Ltd	Director fees Reimbursement of costs incurred on behalf of Nanosonics		
Maurie Stang	Regional Healthcare Group Pty Ltd	Products purchased, services received and products sold		
Richard England	Angleterre Pty Ltd and Domkirke Pty Ltd	Director fees		
			2019	2018
			\$	\$
Sale of products and services to Related Parties			2,772,811	2,409,140
Purchases of goods and services from Related Parties			1,865	2,715
Reimbursement of costs incurred on behalf on Nanosonics			8,659	10,520

The above transactions exclude Director fees which are disclosed in Non-executive Directors' remuneration in section 8.3 of the Remuneration Report on page 54.

iii) Outstanding balances arising from sales/purchases of goods and services

The following balances are outstanding at the end of the reporting period in relation to transactions with Regional Healthcare Group Pty Ltd:

	2019 \$	2018 \$
Current trade receivables (supply of goods and services)	909,619	643,725

There were no amounts due from or to other Related Parties. There were no provisions for impaired receivables in relation to any outstanding balances from Related Parties (2018: Nil) and no expense has been recognised during the period in respect of impaired receivables due from Related Parties.

iv) Loans to Directors and Key Management Personnel

During the year and to the date of this report, the Group made no loans to Directors and Key Management Personnel and none were outstanding as at 30 June 2019 (2018 : Nil).

v) Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

Outstanding balances are unsecured and are repayable in cash.

10.3 Controlled entities

The consolidated financial statements of the Group include:

Name of controlled entity	Principal activities	Country of incorporation	Class of shares	Equity	
				2019	2018
Nanosonics Europe GmbH	Provision of sales and customer support services to Nanosonics Limited in Germany	Germany	Ordinary	100%	100%
Saban Ventures Pty Limited	Owner of the registered intellectual property of the Group	Australia	Ordinary	100%	100%
Nanosonics, Inc.	Sales and distribution of Nanosonics' products and provision of sales and customer support services to Nanosonics Limited in the USA	USA	Ordinary	100%	100%
Nanosonics Europe Limited	Sales and distribution of Nanosonics' products in Europe	UK	Ordinary	100%	100%
Nanosonics UK Limited	Provision of sales and customer support services in Europe	UK	Ordinary	100%	100%
Nanosonics Canada, Inc.	Sales and distribution of Nanosonics' products and services in Canada	Canada	Ordinary	100%	100%
Nanosonics Japan K.K.	Sales and distribution of Nanosonics' products and services in Japan	Japan	Ordinary	100%	—

On 11 January 2019 Nanosonics Japan K.K. was established as a wholly owned subsidiary of Nanosonics Limited, based in Japan.

Notes to the consolidated financial statements

10 OTHER NOTES (continued)

10.4 Parent entity information

As at and throughout the financial year ended 30 June 2019, the parent entity of the Group is Nanosonics Limited which is based and listed in Australia. The individual financial statements for the parent entity show the following aggregate amounts:

i) Summary financial information

	2019 \$'000	2018 \$'000
Statement of financial position		
Current assets	141,431	113,943
Total assets	155,615	131,359
Current liabilities	22,208	16,149
Total liabilities	22,871	17,186
<i>Shareholders' equity</i>		
Share capital	112,713	112,713
Share-based payments reserve	16,188	13,232
Hedging reserve (net of tax)	(46)	(91)
Accumulated profit/(losses)	3,889	(11,681)
Total equity	132,744	114,173
Profit for the year	15,482	7,236
Total comprehensive income	15,564	7,145

ii) Guarantees entered into by the parent entity

For the year ended 30 June 2019 and 30 June 2018, the parent entity provided assurances to its controlled entities, Nanosonics Europe GmbH, Nanosonics Europe Limited and Nanosonics UK Limited that the intercompany debts will not be required to be repaid until such time as the controlled entities have sufficient funds available. No other guarantees were provided during the period.

iii) Contingent liabilities of the parent entity

The parent entity did not have any contingent liabilities as at 30 June 2019 or 30 June 2018.

iv) Contractual commitments for the acquisition of property, plant or equipment

As at 30 June 2019, the parent entity had commitments to purchase plant and equipment of \$1,069,000 (2018: \$399,000). These commitments are not recognised as liabilities as the relevant assets have not yet been received.

v) Accounting policies

The accounting policies of the parent entity are consistent with the Group except for Investment in controlled entities which is carried in the parent company financial statements at the lower of cost or recoverable amount.

10 OTHER NOTES (continued)

10.5 Remuneration of auditors

During the year the following fees were paid or payable for services provided by the auditor of the parent entity, its related practices and non-related audit firms:

	2019 \$	2018 \$
Ernst & Young Australia		
Audit and review of financial reports	303,360	244,475
Tax compliance services	86,500	49,300
Total remuneration of Ernst & Young Australia	389,860	293,775
Ernst & Young Global		
Tax compliance services	23,537	109,064
Total remuneration of Ernst & Young Global	23,537	109,064
UHY Haines Norton		
<i>Audit and assurance service</i>		
Audit and review of financial reports	—	9,485
Total remuneration of UHY Haines Norton	—	9,485
Network firm of UHY Haines Norton		
<i>Audit and assurance service</i>		
Audit and review of financial reports	—	23,074
Tax compliance services	—	6,567
Total remuneration of network firms of UHY Haines Norton	—	29,641
Total auditors' remuneration	413,397	441,965

10.6 New standards and interpretations not yet adopted

A number of new standards, amendments to standards and interpretations are effective for financial years beginning on or after 1 January 2019 and have not been applied in preparing these consolidated financial statements. Of the new standards, the following is expected to have an effect on the consolidated financial statements of the Group:

AASB 16 Leases

For lessee accounting, the standard eliminates the operating lease and finance lease classification required by AASB 117, Leases. Subject to exemptions, a right-of-use asset will be capitalised in the statement of financial position, measured as the present value of the unavoidable future lease payments to be made over the lease term.

The exceptions relate to short-term leases of 12 months or less and leases of low-value assets where an accounting policy choice exists where either a right-of-use asset is recognised or lease payments are expensed to profit or loss as incurred.

A liability corresponding to the capitalised lease will also be recognised, adjusted for lease prepayments, lease incentives received, initial direct costs incurred and an estimate of any future restoration, removal or dismantling costs. Straight-line operating lease expense recognition will be replaced with a depreciation charge for the lease asset (included in operating expenses) and in interest expense on the recognised lease liability (included in finance costs).

For classification within the statement of cash flows, the lease payments will be separated into both principal (financing activities) and interest (either operating or financing activities) components. For lessor accounting, the standard does not substantially change how a lessor accounts for leases.

Notes to the consolidated financial statements

10 OTHER NOTES (continued)

Transition to AASB 16

The Group plans to adopt AASB 16 modified retrospective method. The Group will elect to apply the standard to contracts that were previously identified as leases applying AASB 117 and AASB Interpretation 4.

The Group will elect to use the exemptions proposed by the standard on lease contracts for which the lease terms ends within 12 months as of the date of initial application, and lease contracts for which the underlying asset is of low value.

As at 30 June 2019, the Group has performed a detailed impact assessment of AASB 16. A summary of the expected opening balance adjustments as at 1 July 2019 are included below.

Impact on the statement of financial position as at 1 July 2019:

Financial statement line item	Opening balance adjustment as at 1 July 2019 \$ 000'
Right of use asset	5,499
Accumulated depreciation - right of use asset	(3,488)
Right of use asset – net of accumulated depreciation	2,011
Deferred tax asset	56
Increase in assets	2,067
Lease liability	(2,413)
Trade and other payables ¹	196
Increase in liabilities	(2,217)
Net decrease in equity	(150)

1. Reversal of Lease straight-lining liability in note 6.4.

The impact of AASB 16 will be first presented for the half-year ending 31 December 2019. The cumulative effect of adopting the standard will be recorded as an adjustment to the opening balance of accumulated profits/(losses).

10.7 Events occurring after the balance date

No matters or circumstances that have arisen since 30 June 2019 that have significantly affected, or may significantly affect:

- the Group's operations in the current or future financial years;
- the results of those operations in the current or future financial years; or
- the Group's state of affairs in the current or future financial years.

Directors' declaration

For the year ended 30 June 2019

1. In the Directors' opinion:
 - a) the financial statements and notes set out on pages 55 to 92 are in accordance with the *Corporations Act 2001*, including:
 - i. complying with the Accounting Standards and the Corporations Regulations 2001;
 - ii. giving a true and fair view of the Company's and Group's financial position as at 30 June 2019 and of their performance for the financial year ended on that date, and
 - b) the financial statements and notes also comply with International Financial reporting Standards as disclosed in note 1.2; and
 - c) there are reasonable grounds to believe that the Company and its subsidiaries will be able to pay their debts as and when they become due and payable.
2. The Directors have been given the declarations by the Managing Director and CEO and the Chief Financial Officer required by section 295A of the *Corporations Act 2001*.
3. This declaration is made in accordance with a resolution of Directors.



Richard England

Director

Sydney, 27 August 2019



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Independent Auditor's Report to the Members of Nanosonics Limited

Report on the Audit of the Financial Report

Opinion

We have audited the financial report of Nanosonics Limited (the Company) and its subsidiaries (collectively the Group), which comprises the consolidated statement of financial position as at 30 June 2019, the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the *Corporations Act 2001*, including:

- a) giving a true and fair view of the consolidated financial position of the Group as at 30 June 2019 and of its consolidated financial performance for the year ended on that date; and
- b) complying with Australian Accounting Standards and the *Corporations Regulations 2001*.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Group in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial report of the current year. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, but we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.



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We have fulfilled the responsibilities described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial report. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial report.

Why significant

1. Revenue recognition

As disclosed in Note 2.1 of the financial report, revenue from the sale of goods is recognised when the Group has delivered goods to its customers and revenue from the sale of services is recognised when the distinct performance obligation is fulfilled. The Group adopted Australian Accounting Standard AASB 15 *Revenue from Contracts with Customers* ("AASB 15") effective 1 July 2018.

The Group has a number of different revenue streams and channels to market for its products. Judgement is involved in determining whether the criteria for revenue recognition have been met and that revenue is recognised in the correct period. On this basis this was considered a Key Audit Matter.

How our audit addressed the key audit matter

Our audit procedures included the following:

- An assessment of the appropriateness of the Group's revenue recognition accounting policies relating to the requirements of AASB 15.
- An assessment of the appropriateness of the Group's methodology and assumptions used to calculate the transitional adjustment related to the first time adoption of AASB 15.
- For a sample of transactions relevant to the transitional adjustment we recalculated the required adjustment and agreed the data used in the calculation to the relevant contract.
- We tested the key controls of the Group relating to product sales and service revenue recognition.
- For a sample of product sales and service revenue transactions, we obtained evidence of the sale and assessed whether the sale was recorded in the correct period.
- For a sample of product shipments pre and post year end, by reference to external proof of delivery documentation, we assessed whether revenue was recorded in the correct period.
- We assessed the disclosures relating to revenue in the financial report.



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Why significant

2. Deferred tax assets

As disclosed in Note 3.2 of the financial report, the Group recorded net deferred tax assets of \$12,893,000.

In assessing the recoverability of these deferred tax assets, judgements were made as to the amount and timing of future taxable income and the extent to which carry forward income tax losses can be utilised.

This matter is considered a Key Audit Matter due to the level of judgement required to estimate the future taxable income.

How our audit addressed the key audit matter

Our audit procedures included the following:

- We assessed whether the approach used by the Group to determine the recoverability of tax losses met the requirements of Australian Accounting Standards.
- We assessed the basis for the Group's future taxable income forecast including considering the historical accuracy of previous forecasts.
- We assessed, with the involvement of our tax specialists, the application of relevant tax legislation to the usage of tax losses.
- We evaluated the adequacy of the disclosures relating to the deferred tax asset, including those made with respect to judgements and estimates.

Information Other than the Financial Report and Auditor's Report Thereon

The directors are responsible for the other information. The other information comprises the information included in the Company's 2019 Annual Report, but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon, with the exception of the Remuneration Report and our related assurance opinion.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.



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Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.



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- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated to the directors, we determine those matters that were of most significance in the audit of the financial report of the current year and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on the Audit of the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in pages 35 to 54 of the directors' report for the year ended 30 June 2019.

In our opinion, the Remuneration Report of Nanosonics Limited for the year ended 30 June 2019, complies with section 300A of the *Corporations Act 2001*.

Independent Auditors' Report

to the members of Nanosonics Limited



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Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the *Corporations Act 2001*. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

A handwritten signature in black ink that reads "Ernst + Young".

Ernst & Young

A handwritten signature in black ink that reads "Gamini Martinus".

Gamini Martinus
Partner
Sydney
27 August 2019

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Shareholder Information

The shareholder information set out below was applicable as at 14 August 2019.

A. Equity security holders

20 largest holders of quoted equity securities

Ordinary shares	Number of quoted shares held	Percentage
HSBC Custody Nominees (Australia) Limited	84,595,823	28.20%
J P Morgan Nominees Australia Pty Limited	28,816,055	9.61%
Citicorp Nominees Pty Limited	17,233,349	5.75%
UBS Nominees Pty Ltd	13,203,244	4.40%
Mr Maurie Stang ¹	12,629,534	4.21%
National Nominees Limited	12,533,526	4.18%
Mr Bernard Stang ¹	10,506,972	3.50%
Mr Steve Kritzler	8,489,737	2.83%
Bnp Paribas Nominees Pty Ltd <Agency Lending Drp A/C>	5,234,138	1.74%
Woodross Nominees Pty Ltd	4,427,567	1.48%
BNP Paribas Noms Pty Ltd <Drp>	3,591,038	1.20%
BNP Paribas Nominees Pty Ltd <Agency Lending Collateral>	3,213,000	1.07%
National Nominees Limited <N A/C>	2,761,200	0.92%
Asia Union Investments Pty Limited	2,700,000	0.90%
Dr Harry Hirschowitz	2,139,090	0.71%
Avanteos Investments Limited <2349414 Hofbauer A/C>	1,200,000	0.40%
Mr Michael Kavanagh	1,018,363	0.34%
Sargon Ct Pty Ltd <Nanosonics Desp A/C>	813,842	0.27%
Larinda Pty Ltd <Bg Superannuation Fund A/C>	800,000	0.27%
Bennelong Resources Pty Limited <John Egan Super Fund A/C>	715,000	0.24%
Total top 20 holders	216,621,478	72.22%
Total all other holders	83,345,801	27.78%
Total shares on issue	299,967,279	100.00%

1. Exclude indirect holdings and shares held by close family member.

Unquoted equity securities	Number of options over ordinary shares	Number of holders ¹
Performance rights and options on issue		
Performance rights under ESOP to take up unissued ordinary shares	384,788	7
Performance rights and options under NOEP to take up unissued ordinary shares	3,618,841	125
Total performance rights and options on issue	4,003,629	125

1. There are 7 common holders in ESOP and NOEP.

Shareholders Information

B. Distribution of equity securities

Analysis of numbers of ordinary shares and options by size of holding

	Quoted ordinary shares	Unquoted PR and options
1 – 1,000	4,859	60
1,001 – 5,000	5,319	32
5,001 – 10,000	1,507	1
10,001 – 100,000	1,318	23
100,001 and over	110	9
Total holders	13,113	125

There were 306 holders of less than a marketable parcel of 98 ordinary shares.

C. Substantial holders

Substantial holders in the Company are shown below:

	Number of ordinary shares	Percentage
FMR LLC	27,783,829	9.26%
Mr Maurie Stang ¹	18,946,517	6.32%
Mr Bernard Stang ¹	17,451,417	5.82%

1. Include indirect holdings but exclude shares held by family member.

D. Voting rights

The voting rights attaching to each class of equity securities are set out below:

a. Ordinary shares

On show of hands every member present at a meeting in person or by proxy shall have one vote and on poll each share shall have one vote.

b. Performance rights and options

Performance rights and options have no voting rights.

E. On market share purchase or buy-backs

The company did not carry out any on market purchase or buy-backs of shares during the year.

Glossary

AASB	Australian Accounting Standards Board
ACIPC	Australian College for Infection Prevention and Control
AGM	Annual General Meeting
APES	Accounting Professional and Ethical Standard
APIC	Association for Professionals in Infection Control and Epidemiology
ASIC	Australian Securities and Investments Commission
ASUM	Australasian Society for Ultrasound in Medicine
ASX	Australian Securities Exchange Limited
AUD	Australian dollar
BMUS	British Medical Ultrasound Society
CAD	Canadian dollar
CAGR	Compound Annual Growth Rate
CEO	Chief Executive Officer
CEO&P	Chief Executive Officer and President
CFO	Chief Financial Officer
Company or Nanosonics	Nanosonics Limited ABN 11 095 076 896
Date of this report	27 August 2019
DESP	Deferred Employee Share Plan
EBIT	Earnings Before Interest and Tax
EBTDA	Earnings Before Tax Depreciation and Amortisation
ECL	Expected Credit Loss
EMEA	Europe Middle East and Africa
EPS	Earnings Per Share
ERP	Enterprise Resource Planning
ESG	Environmental, Social and Governance
ESOP	Employee Share Option Plan
EUR	European Currency
FDA	Food and Drug Administration
Fiscal Year	Year to 30 June
FY	Financial year, eg. FY2019 is the financial year ended 30 June 2019
GBP	Great Britain Pounds
GRI	Global Reporting Initiative
Group	Nanosonics Limited and its wholly owned subsidiary companies
GST	Goods and Services Tax
H2O2	Hydrogen Peroxide
HAI	Healthcare Acquired Infection
Hep B	Hepatitis B
HIV	Human Immunodeficiency Virus
HLD	High Level Disinfection – involves the complete elimination of all microorganisms in or on an instrument, except for small numbers of bacterial spores
HPV	Human papillomavirus
IAS	International Accounting Standards
IASB	International Accounting Standards Board

Glossary

IFRS	International Financial Reporting Standards
IP	Intellectual Property
ISO 13485	Quality Management System for Medical Devices – Requirements for Regulatory Purposes
ITAA	Income Tax Assessment Act
JSOG	Japanese Society of Obstetrics and Gynecology
KMP	Key Management Personnel
LTI	Long-Term Incentives
LTIS	Long-Term Incentive Scheme
MES	Managed Equipment Service
MRSA	Methicillin resistant Staphylococcus aureus
NAN	Nanosonics Limited (ASX Code)
NHS	National Health System (UK)
NOEP	Nanosonics Omnibus Equity Plan
NPI	New Product Introduction
OEM	Original Equipment Manufacturer
PBT	Profit before tax
PCT	Patent Corporation Treaty
Q1, 2, 3, or 4	Three-monthly periods beginning 1 July, 1 October, 1 January and 1 April respectively
R&D	Research and Development
Reporting period	Year to 30 June 2019
RFID	Radio-frequency Identification
SASB	Sustainability Accounting Standards Board
SG&A	Selling, General and Administration
STI	Short-Term Incentives
TFR	Total Fixed Remuneration
trophon®	The brand representing Nanosonics' range of infection control solutions designed specifically for healthcare settings
trophon® EPR	The brand of Nanosonics' device specifically designed to disinfect intracavity and surface ultrasound probes
trophon®2	The next generation trophon® device with an enhanced design and new functionality including AcuTrace™ for audit-ready digital record keeping and capabilities to seamlessly connect trophon®2 with hospital IT systems
TSR	Total Shareholder Return
UK	United Kingdom
US	United States of America
USD	United States dollar
VAT	Value Added Tax
VWAP	Volume Weighted Average Price
WAEP	Weighted Average Exercise Price
WHS	Work, Health and Safety

Corporate directory and information for investors

Nanosonics Limited ABN 11 095 076 896 incorporated 14 November 2000

Directors

Maurie Stang
Richard England
David Fisher
Steven Sargent
Marie McDonald
Geoff Wilson
Michael Kavanagh

Company Secretary

McGregor Grant

Registered Office

14 Mars Road, Lane Cove
NSW 2066 Australia
Ph: +61 2 8063 1600

Share Register

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McGregor Grant – Company Secretary

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Auditor

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Legal Advisors

Baker & McKenzie

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Mills Oakley

Level 7, 151 Clarence Street
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Shelston IP

Level 21, 60 Margaret Street
Sydney, NSW 2000 Australia

Bankers

Australia

Australia and New Zealand Banking Group Limited
HSBC Bank Australia Limited
National Australia Bank Limited
Commonwealth Bank of Australia Limited

United Kingdom

HSBC Bank PLC

Germany

Deutsche Bank AG

United States

HSBC Bank USA NA
PNC Financial Services Group, Inc.

Japan

MUFG Bank Ltd.

Stock Exchange Listing

Nanosonics Limited shares are listed on the Australian Securities Exchange

ASX code: NAN

Industry Group: Healthcare Equipment & Services

2019 Annual General meeting

The 2019 AGM of Nanosonics Limited will be held:

At 11:00am on 18 November 2019

Studio Rooms,
Four Seasons Hotel
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