rakon

50 YEARS OF INNOVATION

2017 REVIEW

Enabling Connectivity

50

1967 ▸ 2017

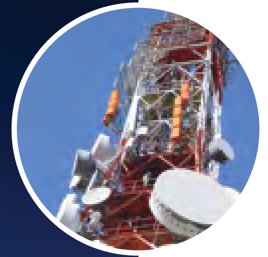
ANNIVERSARY EDITION

Advanced Timing for a Synchronised World

All electronic systems, including communications and location systems, require precise electronic 'heart beats'. These 'heart beats' are produced by resonating quartz crystals, and are used to generate the extremely accurate electrical, radio or optical signals used in systems around the globe.

Rakon's advanced frequency and timing solutions hold time and provide a stable timing reference for equipment in the network. Its products enable synchronised time, and the efficient and reliable transfer of data at ever increasing precision and speed.

Whether it be within wired, wireless or fibre telecommunications networks, navigation devices, or satellites in space – **Rakon products enable connectivity.**



Performance Snapshot FINANCIAL YEAR 2017

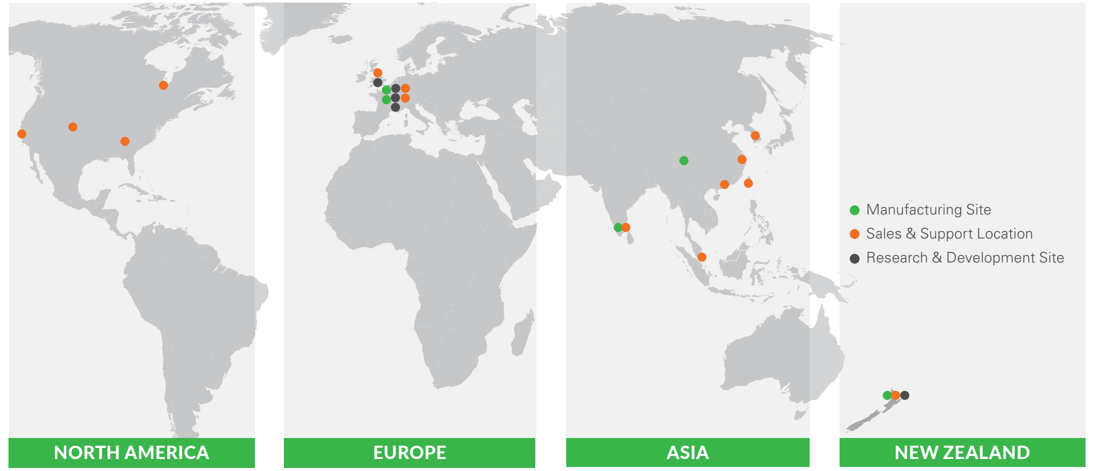
REVENUE	▼ 16.0%	$94.7m
UNDERLYING EBITDA[1]	▼ 55.2%	$4.0m
NET PROFIT / (LOSS)	▼ >100%	$(13.6m)
OPERATING CASHFLOW	▲ 30.4%	$9.5m

All amounts in this document are in NZ$ unless otherwise specified.

- A decline in revenue from the telecommunications market was a major contributor to the decrease in total sales volumes and revenue, as equipment makers continued to delay investment in infrastructure.
- Non-recurring items in Financial Year (FY)2017.
  - Total restructure costs of $3.0 million.
  - Total impairments of $6.6 million.
- Operating expenses down $5.9 million due to a part year benefit from cost reduction initiatives.
- Net debt reduced by $8.1 million.
- Research and Development (R&D) investment delivering new generations of OCXOs[2] and TCXOs[2].

> While we experienced a lift in business in the telecommunication market in the final quarter, it was not enough to recover the reduced demand that had negatively affected revenue in the first three quarters.
>
> **Brent Robinson**
> Chief Executive Officer / Managing Director

Global Locations



1. Rakon has used 'Underlying EBITDA' as a measure of non-GAAP financial information in this 2017 Review document. Underlying EBITDA is defined as "earnings before interest, tax, depreciation, amortisation, impairment, loss on disposal of assets, employee share schemes, non-controlling interests, adjustments for associates and joint ventures share of interest, tax & depreciation, and other cash and non-cash items." Underlying EBITDA is a non-GAAP measure, with its presentation not being in accordance with GAAP. The Directors present Underlying EBITDA as a useful non-GAAP measure to investors, in order to understand the underlying operating performance of the Group and each operating segment, before the adjustment of specific non-cash charges and before cash impacts relating to the capital structure and tax position. Underlying EBITDA is considered by the Directors to be the closest measure of how each operating segment within the Group is performing. Management uses the non-GAAP measure of Underlying EBITDA internally, to assess the underlying operating performance of the Group and each operating segment. The use of Underlying EBITDA for FY2016 and FY2017 has been extracted from audited financial statements. This document should be read in conjunction with the Rakon Limited Annual Report 2017. A detailed reconciliation of Underlying EBITDA to Net (Loss)/Profit for the year is contained at Note B1 c) of the financial statements.

Contents

2 Product acronyms and definitions are explained in the Glossary on page 19.

Chairman's Report

Dear fellow shareholders, welcome to this the 12th Annual Report of your company Rakon Limited.

The fiscal year disappointingly generated a loss of $13.6 million after tax. The Underlying EBITDA[3] from trading was within our anticipated range but lower than last year as a result of a slower telecommunications market overall. During the year, management has worked very hard to right size the business for optimum efficiency, as we announced at last year's Annual Shareholders' Meeting. We have reduced risk in the balance sheet, lowering net debt by $8.1 million and increasing operating cash flow to $9.5 million. The reduction in operating expenses on an annualised basis of $8.9 million before restructure costs will have a positive impact on next year's profit. During the period of restructuring, the Board agreed to write down certain assets and goodwill to the tune of $6.6 million. Cost reductions incurred one-off costs, including restructuring costs of $3.0 million. These factors, combined with weaker demand, a comparative revenue reduction from the NZD versus the USD of $2.9 million and the asset write downs, significantly contributed to the $13.6 million net loss after tax.

Milestones and Change

Rakon had its 50th birthday on 4 April this year, a significant milestone and one not easily achieved by any company, especially one listed on the stock exchange. During that time Rakon has had its share of ups and downs typical of similar tech companies; our goal is to make the next 50 years much more stable.

During the past year there has been considerable change with Herb Hunt, Sir Peter Maire and Darren Robinson leaving the Board. Sir Peter and Herb made significant contributions while Directors of Rakon and they depart with the Board's thanks and best wishes for their respective futures.

Darren, while departing the Board, plays a very important role at Rakon managing the global sales & marketing function over the 60 countries that we do business in, and having responsibility for 50 team members. Darren's knowledge and experience within the frequency control marketplace is unparalleled, and his energy and determination in his role is highly valued by the Board.

This year will see the founder of Rakon, Warren Robinson, retire after 50 years with the company. Warren's contribution to Rakon, its customers, people and the wider New Zealand tech economy has been huge. From all of us on the Board he departs with our heartfelt thanks and admiration, for everything his endeavours have achieved.

New Directors joining the Board are Lorraine Witten, Keith Oliver and Yin Tang Tseng (Tony). We are very fortunate to have attracted people of their calibre. Lorraine is a qualified Chartered Accountant with solid business and governance experience, Keith is a qualified Electronics Engineer with a background in global high tech companies like Rakon, and Tony is the Chair of our new substantial shareholder, Taiwan Stock Exchange listed Siward Crystal Technology Co. Limited ('Siward'). Lorraine has joined the Audit and Risk Management, Remuneration and Nomination Committees and Keith the Remuneration and Nomination Committees. Lorraine, Keith and Tony's energy, ideas and enquiry to date have assisted with enhanced strategic planning at Rakon and I feel very confident that our new Board team will help management to achieve higher profit goals than has been accomplished over the past few years.

Tony's joining of the Board came about through his company, Siward, investing in Rakon. Siward paid US$10 million for 38,016,681 shares (a 16.6% stake in Rakon), and a technology transfer that will see Siward benefit through enhanced product technology and will see Rakon benefit by expanding its low-cost manufacturing base for specific TCXO product lines. This transaction, besides being very good strategically for both companies, provided capital to Rakon's balance sheet, with which we have been able to further reduce core debt. The technology transfer agreement generated income of $4.4 million in this year's accounts and will generate a further $2.5 million next year.

During the year, management across the globe worked very hard at restructuring the cost base of Rakon, which has resulted in a reduction in team numbers. Those numbers have fallen from 479 to 402. I'm certain everyone realises that undertaking this type of change, while often necessary, is never easy, and meant losing people who provided valuable contributions to the company.

Thinxtra

Last year Rakon invested in the Internet of Things (IoT) start up, Thinxtra. This company is placed in a unique position to lead the IoT revolution within its territory of Australia, New Zealand and Hong Kong. Currently it has Low Power Wide Area Network (LPWAN) coverage available to 71% of the population in Australia and 89% of the population in New Zealand. Thinxtra, at this early stage, has 1.5 million committed connections from existing customers with a gross revenue committed of AU$18 million over the next eight years, and it has over 50 million potential connections in its current pipeline. So far Thinxtra has raised AU$16 million and Rakon currently has 42% of the equity. Rakon hasn't participated since the first round of funding and is relaxed about being diluted by future capital introduction. Currently, Thinxtra is in the process of a Series B round of fund raising for AU$15 million, with 33% of that committed, and the remainder in advanced stages of discussion and due diligence with interested parties. This round of capital raising is anticipated to be sufficient to complete Thinxtra's network build within the three countries it will cover. It should also be sufficient to enable Thinxtra to develop its active customer base sufficiently, for the cash flow to sustain the business's ongoing activities.

I chair Thinxtra, with Brent Robinson also on the Board. I am also now personally a Thinxtra shareholder, having invested approximately $550,000 in later funding rounds.

While Thinxtra is a start-up, now moving positively toward profitability, as always with start-ups there is risk, and we need to temper the early positive signs with a sense of caution. However, if Thinxtra continues to progress as it has to date, we believe that this business has the makings of a very valuable investment for Rakon. The investment also positions Rakon strategically within the IoT space – an important one for Rakon's future business.

Closing Comments

The last few years have been a tough time for Rakon, its shareholders and the team within the business. There have been a lot of reasons for this, all largely traversed in the past. Today, Rakon's base has been strengthened with significant debt and operating cost reductions, new shareholders and valuable partnerships established. Currently, there is an early and encouraging increase in demand from the large telecommunications market: as the saying goes, one swallow doesn't make a summer, but the signs are positive. However, we have thought this all before and the team will be doing their best to harvest as much profit as they can from this rise in demand and our restructured business.

As a Board, we recognise the tough times that our shareholders have suffered and we are very determined as a new team to generate strong future value growth for the company we own together. Thank you for your patience and we look forward to meeting you at our Annual Shareholders' Meeting on 17 August.

Bryan Mogridge Chairman

[3]Refer to the footnote on page 3 for the definition of Underlying EBITDA as a measure of non-GAAP financial information, referred to in this document.

Managing Director's Report
The Financial Year 2017 in Review

Tough trading conditions and restructuring costs were contributors to Rakon reporting a net loss after tax of $13.6 million on revenue of $94.7 million for the year ended 31 March 2017. Underlying EBITDA[4] of $4.0 million was in line with forecasts issued earlier in the year. A 16% decline in revenue, mainly coming from the telecommunications market for the period, was a major contributor to the decrease in total sales volume and revenue, which led to our disappointing result. In line with the revenue decline, gross profit of $33.7 million reduced 29.8% compared to the previous financial year. Rakon continued to be affected in our key telecommunications market segment by reduced demand from equipment makers as major global network operators have continued to delay infrastructure investment.

During the year, action was taken to address the impact of reduced revenue on earnings. Key priorities during the year have been reducing operating costs and balance sheet risk. There has been significant progress in this area, with operating costs reduced by $8.9 million compared with the prior year (before the impact of restructure costs of $3.0 million). The reduction in operating costs and the US$10 million proceeds that resulted from agreements with Siward Crystal Technology Co. Limited ('Siward') and its purchase of a 16.6% stake in Rakon, allowed the company to pay down a large portion of its debt. Net debt reduced by $8.1 million over the period to $4.5 million.

In addition to the restructure costs incurred, other non-recurring items had a negative impact on the result. Impairments of $6.6 million were recorded, which included an impairment of goodwill of $1.9 million and an impairment of the investment in Centum Rakon India of $3.2 million, where value-in-use calculations based on future forecasts did not support the full value of this investment being retained. As revenue declined, the company has also increased inventory obsolescence provisions during the year by $4.2 million.

Although a disappointing result, there were a number of key achievements in FY2017[5]. Operating cash flow for the period increased 30.4% vs. FY2016 to $9.5 million. Following the restructure plan being fully implemented, the company was profitable at a Net Profit After Tax (NPAT) level in quarter four, excluding impairments. In FY2017 the re-zoning of our property in Argenteuil, France was completed. Further building consent related conditions are to be achieved before a sale completes, which is expected in FY2018. Lastly of note, our research and development investments have enabled us to deliver new generations of our TCXOs and OCXOs. We have seen a lot of sample activity as a result of our efforts over the last few years. Further achievements generated by our investment in research and development and new products released are outlined in more detail on pages 15 and 16.

Market Update

Telecommunications

Throughout the year, the negative trend continued in telecommunications with US dollar revenue down 18% year on year, due to a number of factors. Mobile network operator spending remained down through Calendar Year 2016 and this resulted in Tier One equipment manufacturers having restructures of their own. In addition, rationalisation of products after Nokia's takeover of Alcatel-Lucent had a negative overall impact on some of Rakon's mainstream programmes.

In quarter four the trend reversed. While we experienced a lift in business in the telecommunications market, it was not enough to recover the reduced demand that had negatively affected revenue in the first three quarters.

Space and Defence

Combined space and defence business grew eight percent in US$ terms and we are starting to generate growth from a focus on this sector globally. Space business has continued to increase for the last three years, with new deliveries to customers in Asia. Significant progress was also made in the US space market where Rakon's OCXOs were selected for new projects including spectrometer and weather satellite applications. Defence business in the US is strengthening with new US Tier One customers starting to produce revenue as a result of our leading OCSO technology in radar frequency control.

Global Positioning

In FY2017 Rakon experienced a 21% decline in US$ revenue for the global positioning market, with major declines in revenue from business driven from older Personal Navigation Device (PND) designs. Rakon historically had a lot of traditional PND business, which has been cannibalised by smartphone demand as well as newer PND designs, and we haven't been as successful in winning a replacement share due to our manufactured cost. The establishment of the partnership with Siward now allows us to address the needs of cost sensitive applications for the consumer segments including PNDs and fitness.

Continued focus has been on the needs of the growing precision Global Navigation Satellite System (GNSS) market and applications including agriculture and surveying, aviation, automotive and drones. Rakon products developed for the precision GNSS market utilise our core strengths in crystal and Application Specific Integrated Circuit (ASIC) technologies.

Rakon has also been actively winning design-ins for China's BeiDou GNSS market, which is still emerging.

Siward Partnership

As Bryan has mentioned in his Chairman's Report, Siward's investment and the new partnership that has been formed between the two companies open up new contract manufacturing opportunities. Siward is a very efficient high volume manufacturer in Taiwan that is producing 90 to 100 million units a month, generating US$97 million in revenue in Calendar Year 2016. This provides opportunities for Rakon to grow market share in the global positioning market, utilising the combination of Siward's lower cost manufacturing platform and Rakon's technology. It also opens up new distribution channels, where our existing customer base has a need for the type of products that Siward produces.

FY2017 Summary

The financial year has been a tough one, in which financial results reflect a fall in demand. Impairments have been taken where necessary. Actions have been focused on riding out the tough market conditions to leave us stronger when demand returns. A substantial reduction in operating expenses has been achieved, and we have reduced risk on the balance sheet through the introduction of capital and repayment of debt. The new partnership formed with Siward reduces future risk by expanding Rakon's global manufacturing platform and distribution channels.

Looking Ahead

A full year benefit as a result of the FY2017 cost reduction action is forecast. The fourth quarter FY2017 net level profitability indicates the bottom of the revenue decline may have passed. Through this tough year, our key customers remain highly engaged due to strong interest around our new product designs and they retain a key interest in developing long term business.

With the company being profitable in quarter four, I remain positive that during the coming financial year and beyond we will start to see a significant improvement in our financial performance as a result of the initiatives that we have taken.

Brent Robinson
Chief Executive Officer / Managing Director

[4]Refer to the footnote on page 3 for the definition of Underlying EBITDA as a measure of non-GAAP financial information, referred to in this document.
[5]Refer also to Achievements Snapshot FY2017 on page 15.

Rakon Celebrates 50 Year History in Hi-Tech Industry

It was the era of black and white television, The Beatles, and the space race between the US and Russia to the moon. It was the 1960s and on the other side of the world, in his garage in little New Zealand, a man was making crystals to generate radio frequency. That man was Warren Robinson, founder of Rakon. Back then, Warren saw a large gap in the market for crystals and so he decided to make his own. The company was incorporated on 4 April 1967.

Fast track fifty years where connected technology is in use more than ever, and diverse applications are evolving rapidly. The company continues to design and make frequency control devices based around quartz. However, today, there is a plethora of communication and location systems, all of which require accurate clocking signals to generate precise electrical, radio or optical signals in networks and systems everywhere – and at the heart of many, is a Rakon product.

In April the company acknowledged this achievement across its multiple sites worldwide.

Brent Robinson says the competitive nature of the industry and rapid pace of technology requirements makes the 50th anniversary of Rakon particularly significant.

"It is an incredible achievement to not only endure within a highly dynamic technology driven industry such as ours, but to continuously innovate and push technology boundaries, and we are immensely proud of this milestone."

So has being a kiwi-led company played a part in Rakon succeeding?

"Certainly the can-do attitude and transparency we have had with our customers has forged very strong relationships with them and that is something inherent within the New Zealand culture. Also our relative isolation to the rest of the world provided the opportunity, particularly in the early Global Positioning System (GPS) days, to develop in-house our own unique proprietary test equipment, which gave us an advantage.

"However, largely we have achieved this milestone through the sheer drive and determination of our highly talented team of engineers and professionals worldwide. We have built a truly global manufacturing, R&D and customer/application support platform. Supporting that is a great team who are united with the same passion and curiosity to continually go beyond conventional performance limits."

Diversification has also been a big part of the company's strategy and Robinson says continuing to diversify, evolve and shape the business to customer requirements will be essential to succeed in the years ahead.

In 2015, the company diversified through its investment in Thinxtra – an IoT business. In February this year, Taiwanese company Siward Crystal Technology Co. Limited took a 16.6 percent share in Rakon, giving both companies a broader range of products and alternative channels, into new and existing markets.

"Listening to our key ecosystem partners, staying abreast of developments and evolving the business accordingly to meet their requirements – and those of the industry – is mandatory" Robinson said.

Rakon has a proud history of delivering industry 'firsts', has won a number of industry and supplier awards and its products can be found in many international programmes.

> Listening to our key ecosystem partners, staying abreast of developments and evolving the business accordingly to meet their requirements . . . is mandatory.
>
> **Brent Robinson**
> Chief Executive Officer / Managing Director

Board of Directors

Bryan Mogridge
ONZM, FNZIOD

Independent Chairman
Age 71
Appointed Chairman in 2005.

Bryan has been a public company Director since 1984.

Formerly Chief Executive Officer (CEO) of Corporate Investments and Montana Wines.

Has chaired BUPA Care Services NZ Limited, Yealands Wine Group Limited, Momentum Energy Pty Limited, Waitakere City Holdings Limited, Enterprise Waitakere, Lantern Hotel Group Pty Limited, Pyne Gould Corporation Limited, The New Zealand Food and Beverage Exporters Council, The New Zealand Wine Institute and The New Zealand Tourism Board, among many other companies.

Was also Vice Chairman of UBS New Zealand and a former Director of Heartland Building Society Limited.

Other Current Directorships: BUPA Australia Pty Limited (Director), Mainfreight (Director), Adherium (NZ) Limited (Director) and Thinxtra Pty Limited.

Bryan is also a Trustee of the Starship Foundation.

Brent Robinson

Executive Director
Age 58
Appointed to Board in 2005.

38 years at Rakon which includes establishing a global business.

31 years as CEO / Managing Director.

Under Brent's leadership Rakon has grown into a global business and a recognised leader in the industry.

Honorary Fellow of the Institution of Professional Engineers New Zealand.

Awarded the New Zealand Hi-Tech Trust – Flying Kiwi Award in 2011.

Bruce Irvine

Independent Director
Age 61
Appointed to Board in 2005.

Managing Partner of Deloitte Christchurch from 1995 to 2007.

Has chaired Canterbury Business Recovery Group Limited, House of Travel Limited, Pyne Gould Corporation Limited and Christchurch City Holdings Limited, among many other companies.

Formerly involved in a voluntary capacity as a trustee of Canterbury Business Recovery Trust.

Other Current Directorships: Heartland Bank Limited (Chairman), Godfrey Hirst Limited (Director), House of Travel Holdings Limited (Director), Market Gardeners Limited (Director), PGG Wrightson Limited (Director), Scenic Hotels Limited (Director), and Skope Industries Limited (Director).

Involved in a voluntary capacity as a Trustee of Christchurch Symphony Trust.

Warren Robinson

Non-Executive Director and Founder
Age 82
Appointed to Board in 2005.

Founded Rakon in 1967 and spent 19 years as Managing Director. Chairman until November 2005.

A member of the Institute of Electrical and Electronics Engineers.

A senior member of the New Zealand Electronics Institute.

A member of The Royal Society of New Zealand.

Warren has a First Class Certificate in Radio Technology.

Yin Tang Tseng

Non-Executive Director
Age 69
Appointed to Board in 2017.

Yin Tang (Tony) is the current Chairman of Siward Crystal Technology Co. Limited, a substantial shareholder (16.6%) in Rakon.

Tony has over 30 years of experience in the Frequency Control Product (FCP) industry, having founded Siward in 1988 and growing the company to become one of the leading companies in the industry globally with revenue of US$97 million.

Other Current Directorships: Securitag Assembly Group Company Limited.

Keith Oliver

Independent Director
Age 62
Appointed to Board in 2017.

Keith is a professional Director and also acts as a business advisor with ALTO Capital Limited where he is also a Director. He is a past Director of a range of NZ technology companies operating in international markets in Asia, Europe and the Americas, several of which he has been a founder and investor.

Other Current Directorships: Blackhawk Tracking Systems Limited (Executive Chairman), Health Vision (NZ) Limited (Chairman) and Vigil Monitoring Limited (Director).

Keith holds a Bachelor of Engineering (Electrical) with First Class Honours from the University of Auckland.

Lorraine Witten

Independent Director
Age 54
Appointed to Board in 2017.

Lorraine is a professional Director with extensive experience in technology and Information Communications Technology (ICT) sectors, as well as competence in strategy and entrepreneurship. She is a chartered fellow of the New Zealand Institute of Directors and has 25 years' experience in senior management and finance roles, including past General Manager of Telecom Mobile from 1997 to 2001.

Lorraine is past Chair of Kordia Group Limited and past Director of New Zealand Trade & Enterprise among others.

Current Governance Positions: Soltius New Zealand Limited (Chair), StarNow Limited (Chair), vWork Limited (Chair), Corrections Department Audit & Risk committee (Member), Wellington Regional Economic Development Agency (Director) and Simply Security Limited (Chair) a company she founded in 2007. Lorraine is also a member of Chartered Accountants Australia and New Zealand and Global Women. She holds a Bachelor of Management Studies with First Class Honours from the University of Waikato.

New Directors

Q&A

Rakon welcomes three new Directors to the Board, who provide their responses to some key questions.

Yin Tang (Tony) Tseng

What interests you about Rakon? Rakon is the technology leader in the Frequency Control Product (FCP) sector. Based on Siward's analysis and assessment, the partnership between Siward and Rakon is a win-win for both companies. Siward's high volume and low cost, state-of-the-art manufacturing capabilities complements Rakon's leading edge technology and capability.

What do you bring to the Board? I bring with me 30+ years' experience in the FCP industry with extended knowledge of the market, application and technology direction. I founded Siward in 1988 with 13 people and now Siward is ranked number seven in the world with over 700 employees. I look forward to sharing my industry experience and expertise to assist Rakon to lower costs and increase profitability.

Why do you want to be on Rakon's Board? As a member of the Board and major shareholder of Rakon, I hope to share and utilise my 30 years of industry experience, and leverage the advantages of the Siward and Rakon partnership to assist Rakon to turn profitable for the shareholders.

In your view what is the biggest driver of change in the technology industry today? Automotive (e.g. telematics, autonomous cars), 5G, artificial intelligence, the IoT (e.g. smart homes and the many other applications it is enabling), and augmented reality and virtual reality.

Keith Oliver

What interests you about Rakon? Rakon has extraordinary market reach into a superb global customer base with deeply trusted relationships. The FCP industry is at a turning point with new market sectors rapidly opening up such as 5G and the IoT. Rakon is well positioned with Intellectual Property (IP), products and strong customer relationships and the company has exciting opportunities ahead.

What do you bring to the Board? Extensive international experience in growing New Zealand technology companies in international markets through direct sales, mergers & acquisitions and joint venture partnering in Asia, North America, Europe and South America. I bring a combination of strategic and commercial skills with in-depth experience of working with founders as businesses scale up.

Why do you want to be on Rakon's Board? As one of the Independent Directors I want to bring a focus on getting a deep understanding of the company's long-term sustainable competitive advantage – where Rakon will focus to build a unique competitive advantage, and therefore be able to deliver sustainable shareholder value.

In your view what is the biggest driver of change in the technology industry today? The disruption of traditional industries by new players entering markets without incumbent infrastructure or supply chains, but with strong balance sheets and strong brands e.g. Information Technology brands entering the automotive space (such as Google and Apple) and the uberisation of traditional industries. The traditional table stake of requiring a history in an industry as a "right-to-play" in the future of an industry has gone. This means the technology industry is going to see a rapid rise of new entrants in new segments and Boards are going to have to stay on their toes to recognise who their new customers will be and which of their customers will cease to exist.

Lorraine Witten

What interests you about Rakon? Rakon has a strong brand and is highly respected globally for its technology. It is also a company that continues to have valuable IP and has shown it can keep innovating its products. I work a lot in the technology space and I have been looking at emerging technologies and the change that's happening. I can see how Rakon's products, with expertise in timing and positioning, can be valuable in this future, e.g. autonomous vehicles to name just one area.

What do you bring to the Board? As well as deep experience in technology businesses, I have over 20 years' experience in governance. I have a strong belief that the quality of leadership and strategy are fundamental to business success, and both of these are driven from the Board.

Why do you want to be on Rakon's Board? I think that for Rakon to improve its performance and value it needs to establish a more competitive position with differentiated product and more influence on pricing. This requires some well thought out strategies into adjacent and emerging markets, and probably with a broader base of customers.

In your view what is the biggest driver of change in the technology industry today? I'm optimistic about all the new technology and change that is happening around the globe. I'd say a big driver is that we are all more receptive to new technologies and change than we've ever been. We are comfortable with technological change and look forward to new possibilities, especially the younger generations who are great at adapting and embracing new technologies, more so than ever before.

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I have a strong belief that the quality of leadership and strategy are fundamental to business success, and both of these are driven from the Board.

Lorraine Witten Independent Director

Financial Summary

Summary of Revenue and Profit/(Loss) For the year ended 31 March 2017	2017 $000s	2016 $000s
Revenue	94,738	112,737
Underlying EBITDA[6]	**4,032**	**9,008**
Depreciation and amortisation	(5,609)	(6,620)
One off cash gains realised on derivatives closed out	(1,096)	–
Interest	(1,432)	(1,125)
Adjustment for associates and joint venture share of interest, tax and depreciation	(2,079)	(2,118)
Impairment	(6,594)	–
Other non cash items	(713)	(2)
Income tax (expense)/credit	(67)	(874)
Net (loss)/profit after tax	**(13,558)**	**(1,731)**

Summary of Statement of Cash Flow For the year ended 31 March 2017	2017 $000s	2016 $000s
Net cash flow		
– Operating activities	9,503	7,285
– Investing activities	(8,364)	(6,994)
– Financing activities	(346)	–
Net increase/(decrease) in cash and cash equivalents	**793**	**291**
Effect of exchange rate changes on cash and cash equivalents	(156)	378
Cash and cash equivalents at the beginning of the period	(561)	(1,230)
Cash and cash equivalents at the end of the period	**76**	**(561)**

Balance Sheet As at 31 March 2017	2017 $000s	2016 $000s
Assets		
Current assets		
Cash and cash equivalents	3,305	3,370
Trade and other receivables	28,249	28,812
Assets classified as held for sale	1,969	–
Derivatives – held for trading	2	227
Derivatives – cash flow hedges	179	459
Inventories	24,286	29,830
Current income tax asset	96	212
Total current assets	**58,086**	**62,910**
Non-current assets		
Derivatives – cash flow hedges	115	1,466
Trade and other receivables	1,365	1,165
Property, plant and equipment	12,745	17,234
Intangible assets	9,467	14,850
Investment in associates	12,004	10,315
Interest in joint venture	3,722	6,798
Deferred tax asset	6,692	6,538
Total non-current assets	**46,110**	**58,366**
Total assets	**104,196**	**121,276**

Balance Sheet As at 31 March 2017	2017 $000s	2016 $000s
Liabilities		
Current liabilities		
Bank overdraft	3,229	3,931
Borrowings	4,530	15
Trade and other payables	15,246	17,526
Derivatives – held for trading	1	3
Derivatives – cash flow hedges	225	1,143
Provisions	910	414
Deferred revenue	2,534	–
Total current liabilities	**26,675**	**23,032**
Non-current liabilities		
Derivatives – cash flow hedges	–	421
Borrowings	31	12,000
Provisions	2,909	2,361
Deferred tax liabilities	24	34
Total non-current liabilities	**2,964**	**14,816**
Total liabilities	**29,639**	**37,848**
Net assets	**74,557**	**83,428**
Equity		
Share capital	181,035	173,881
Other reserves	(23,260)	(20,793)
Accumulated losses	(83,218)	(69,660)
Total equity	**74,557**	**83,428**

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1967 ▸ 2017

The team in the oscillator production area at Rakon's headquarters in New Zealand, on 4 April 2017. Rakon was incorporated on 4 April 1967. In the forefront (fourth from right) is Rakon founder Warren Robinson, with wife Marjorie and sons Brent and Darren.

This financial summary provides partially summarised financial information only, regarding the financial performance of Rakon Limited for the year ended 31 March 2017. Please refer to Rakon Limited's 2017 Annual Report for the full financial statements and accompanying notes. [6]Refer to the footnote on page 3 for explanation of Underlying EBITDA.

Global Executives

Brent Robinson
CEO / Managing Director & Chief Technology Officer

Brent joined Rakon in the 1970s as a radio and electronics apprentice.

Subsequently, as a member of Rakon's engineering team, he developed various key product and production technologies and in 1986 was appointed Managing Director and Chief Executive Officer.

Under Brent's leadership Rakon has grown into a global business and a recognised leader in the industry.

Brent also acts as Rakon's Chief Technology Officer, driving the business's technology and innovation.

Darren Robinson
Sales and Marketing Director

Darren has been Marketing Director since 1990, having earlier held various roles with the company both in New Zealand and overseas.

He leads the sales and marketing activities for Rakon globally and has been instrumental in Rakon's expansion into new markets, its commercialisation of new applications and its development of business relationships with many Fortune 500 companies.

Through Darren's in-depth understanding of the ecosystem and industry, he also plays an integral part in steering Rakon's R&D efforts. He guides product development teams to meet new requirements in emerging applications and to solve problems for customers and the industry.

Darren is also a strong advocate for Rakon's commitment to fostering local engineering talent.

Simon Bosley
Chief Financial Officer

Simon joined Rakon in November 2012 and was appointed as Chief Financial Officer in February 2013.

Simon has had a lead role in Rakon's diversified investment in Thinxtra and the structural change undertaken by the company in recent years. In his current role he is responsible for Rakon's finance, information systems and investor relations functions.

Simon is also Rakon's Company Secretary.

He previously spent ten years with Sony in executive management positions in New Zealand and Australia. Simon is a member of Chartered Accountants Australia and New Zealand (CAANZ).

Dr. Sinan Altug
Managing Director, Europe

Sinan joined Rakon in 2002. In his role as the Managing Director of Europe, he is responsible for all aspects of Rakon's European business units, which includes manufacturing operations, R&D sites and sales, and contributes significantly to Rakon's turnover.

Prior to his current role, Sinan was Global Business Development and Applications Director, driving Rakon's entry and growth in multiple strategic business segments.

Before joining Rakon Sinan held various management positions in the frequency control products industry.

Sinan holds M.S. EE, Ph.D. EE, and MBA degrees.

Margo Thomas
Global General Manager, People and Capability

Margo is currently responsible for all facets of the people function at Rakon, where she is the Global General Manager of People and Capability.

Margo has worked in a variety of human resources management positions, where she has undertaken large scale change transformation programmes. Previous employers include Westpac New Zealand, Spark New Zealand and most recently Crowe Horwarth New Zealand, where she held the position of National Head of Human Resources.

Michael McIlroy
Engineering Manager, Research and Development (NZ)

Michael joined Rakon in 1999. In his role as Engineering Manager, R&D (NZ), he is responsible for all aspects of Rakon New Zealand's research and development function, from early stage research through to product and technology development. Prior to his current role, Michael held a number of roles with Rakon, including General Manager of Engineering (NZ) and Manufacturing Manager (NZ).

Michael has been instrumental in the development of many of Rakon's products, as well as the implementation of automotive certified stage gate product development processes and project and portfolio management.

Scott Stemper
Global Quality Manager

Scott joined Rakon in January 2015 as Global Quality Manager. He leads the development and improvement of quality processes and systems to enhance Rakon's drive to be the leading provider of world class products.

Scott's background includes 10 years as Global Quality Manager with Raltron Electronics Corporation and 20 years with CTS Frequency Controls in oscillator product engineering and quality management roles.

He has also held senior quality management positions with L-3 Communications and D&S Consultants Incorporated.

Achievements Snapshot FY2017

rakon
50 YEARS OF INNOVATION

OBJECTIVE
Grow market share in core markets and emerging markets.

Telecommunications

- New customers for Rakon's Mercury™ and Mercury+™ ASIC based OCXOs.
- Design wins for advanced discrete OCXOs for 5G base station platforms.
- Active contributor to the development of International Telecommunication Union (ITU-T) standards for 5G network requirements including requirements for packet network synchronisation standards.

Global Positioning

- Expanded Asian manufacturing partnerships to meet the market expectations of cost-competitive consumer segments, including Personal Navigation Devices (PNDs) and fitness.
- Focused on specialty markets (surveying, agriculture, aviation, automotive, drones) utilising strengths in Rakon's crystal and ASIC technologies.
- Supported lifesaving emergency beacons as major supplier of reliable TCXOs utilising Rakon's proprietary technology.

Space and Defence

- Combined space and defence business revenue grew eight percent in US$ terms, the result of a globally focused initiative.
- New OCXO business for space spectrometer and weather satellite applications in US.
- Two new US Tier One defence customers starting to generate revenue for OCSOs in radar applications with significant growth potential.

Emerging and Other Markets

- Working with Thinxtra created new relationships with their end customers and provided Rakon access to the Sigfox LPWAN ecosystem.

Refer to pages 18 and 19 for specific achievements for Thinxtra and Rakon.

OBJECTIVE
Invest in R&D to develop new technologies.

Research

- Next generation miniature OCXO product platform development. (UK / NZ)
- Fundamental crystal and materials research in partnership with Victoria University. (NZ)
- New methods of temperature compensation for next generation of oscillator ASICs. (UK)

Technology Development

- Improvement of space crystal long term ageing performance by a factor of ten. (France)
- Class leading TCXO technology targeting OCXO level of performance. (NZ)
- Continued development of next generation OCXOs based on Mercury+™ ASIC. (UK / France / NZ)
- Miniaturisation of SAW oscillators by a ratio of four. (France)

Other

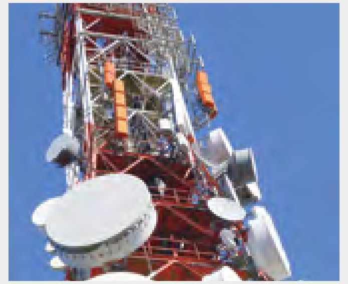
- New patents applied for and several patents pending. (Global)

New Products

Refer to page 16.

OBJECTIVE
Continuous improvement in operational excellence and efficiency.

- Standardised Rakon's global quality systems to ensure industry leading quality.
  - Enhanced qualification testing of new products and continued process quality improvement efforts world-wide in FY2017 have directly resulted in new Tier One customer orders.
- Piloted Product Lifecycle Management (PLM) system with goal of improving efficiency globally.



Telecommunications

The equipment which enables communications networks to operate. Includes base stations, microwave transmission, fibre-optics, small cells and network timing. *OCXOs, TCXOs, VCXOs and XOs.*

Space & Defence

Applications where reliability as well as precision and performance are critical. This market also includes aviation and other high reliability applications. *DPCSSs, OCSOs, OCXOs, TCXOs, VCXOs, XOs* and *Crystals.*

Global Positioning

Includes all GNSS equipment and other location and positioning systems. Applications include Personal Navigation Devices (PNDs), high precision positioning (surveying, mining, and agriculture), rescue beacons, aviation, drones, automotive and sport and recreation products. *TCXOs, XOs* and *Crystals.*

Emerging & Other Markets

There are many applications including the following: wireless control, test and measurement, smart grids and metering, Machine-to-Machine (M2M), and IoT, as well as other emerging markets. *OCSOs, OCXOs, TCXOs, VCXOs, XOs* and *Crystals.*

Products and Markets

New Rakon Products Introduced FY2017

Dual Output Digital Signal Generator (CIF07) Improved product design within the DPCSS product family. Dual output digital signal generator for radar systems.

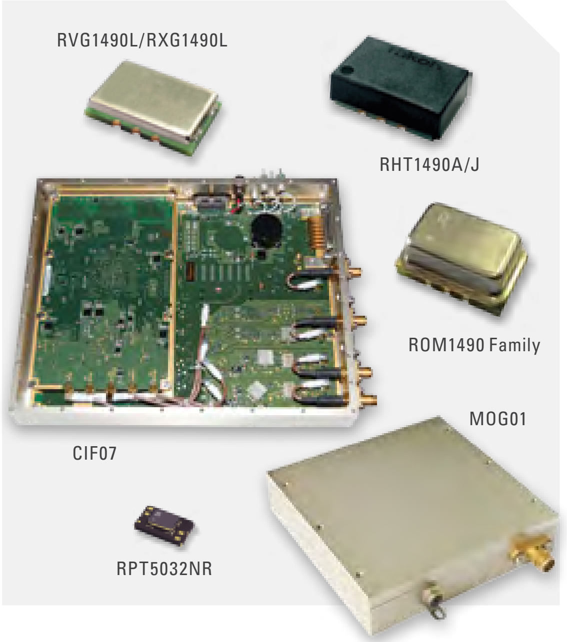
Frequency Module (MOG01) New product family introduced. The module has an input frequency of 320 MHz and generates an amplified output frequency of 3.2 GHz. Applications include instrumentation and ground-based defence equipment.

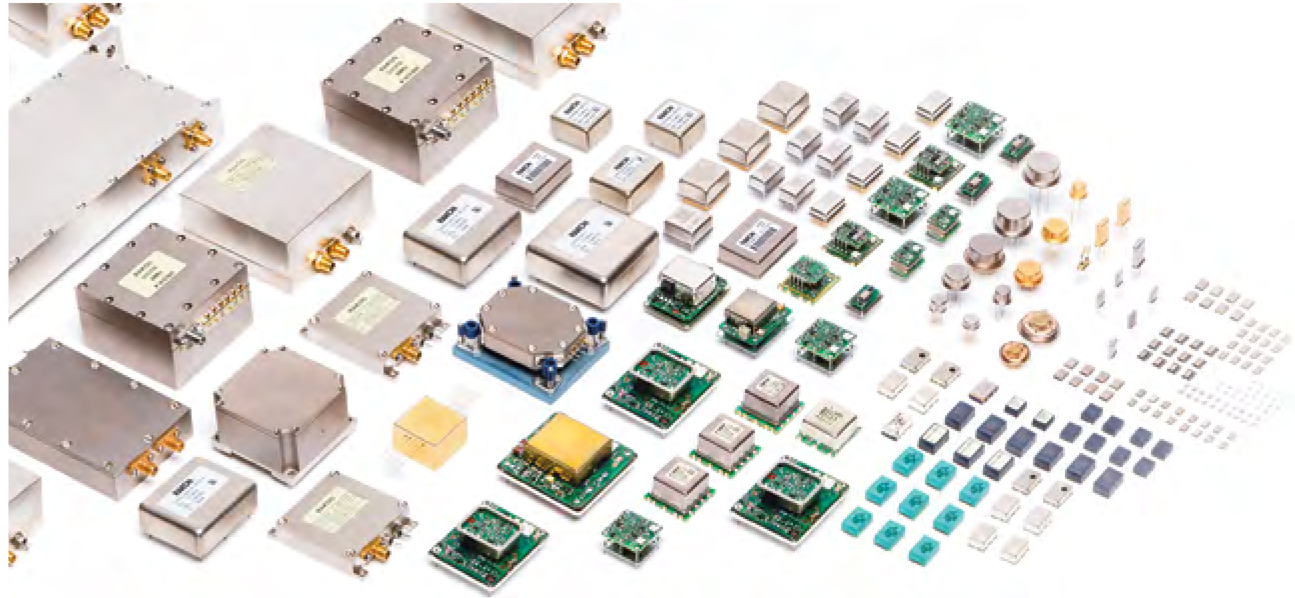
High Frequency TCXO (RHT1490A/RHT1490J) High frequency (50 – 200 MHz), low jitter crystal oscillator with temperature compensation for telecommunications applications.

OCXO using Mercury+™ Technology (ROM1490 Family) New product family of ASIC-based OCXOs introduced. Used for telecommunications infrastructure applications.

Next Generation Small Cell TCXO (RPT5032NR) New low phase noise ultra stable TCXO with patented Rakon technology for small cell applications.

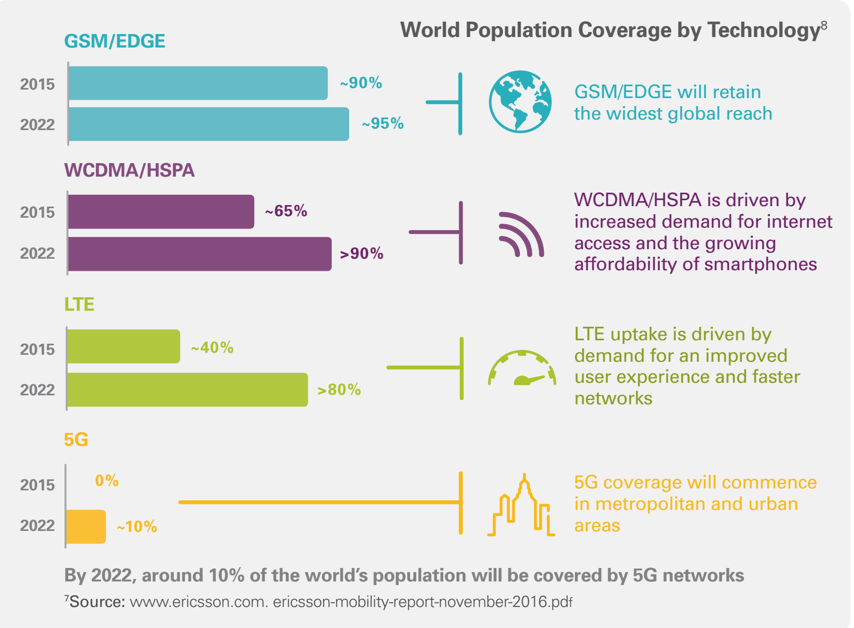
GHz VCXO and XO (RVG1490L/RXG1490L) High frequency (up to 2.2 GHz) and low phase noise oscillator for telecommunications. Available as both a VCXO and a XO.





Timing for Next Generation Networks

From 2016 to 2022, estimates are that LTE mobile subscriptions will have a Compound Annual Growth Rate (CAGR) of 20% and global mobile data traffic will grow by ten times of what it is today[7]. Infrastructure supporting this growth will come from 4G/LTE and the evolution to 4.5G and 5G technologies. These networks are built across radio heads, fronthaul transport networks, baseband units, backhaul transport networks and edge and core switching equipment. This equipment and infrastructure requires high stability OCXOs for grand master clocks that enable synchronisation across the network. In addition, TCXOs are extensively used in transport and backhaul networks, while VCXOs are needed to generate the high spectral frequencies on which the 4.5G and 5G networks will operate. With its broad product portfolio, Rakon is well positioned to address the advanced timing requirements for current and next generation networks.



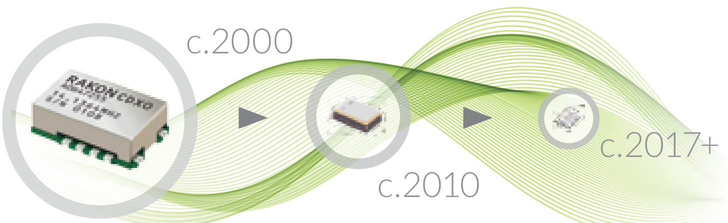
Why Customers Choose Rakon

- 50 years of strong heritage in high technology across multiple markets; embedded in renowned international programmes.
- Continuously pioneering innovative product solutions.
- Reliability and performance, including under extreme conditions.
- Broad product offering.
- Cost competitive global manufacturing platform.
- Localised technical support and customer service structure.
- Preferred and long term supplier to most Tier One and Tier Two customers in key markets.
- Leveraging established ecosystem partnerships.
- Rakon listens to its customers, participates in industry standards committees, and continuously evolves the business around emerging requirements of target industries.

> The partnership with Siward gives both companies a broader range of products and alternative channels into new and existing markets.
>
> **Brent Robinson**
> Chief Executive Officer / Managing Director

Product Development Improving Energy Efficiency

Through its advanced technologies, many of Rakon's products are becoming smaller, higher performing, more reliable and more energy efficient than legacy designs. Improving the efficiency of Rakon products also enables its customers to deliver lower power solutions, which reduces energy consumption and waste in the environment.



[7]Source: www.ericsson.com. ericsson-mobility-report-november-2016.pdf. [8]The figures refer to population coverage of each technology. The ability to utilise the technology is subject to factors such as access to devices and subscriptions.

Loic Barancourt
CEO Thinxtra

Rakon and Thinxtra IoT Update

At a phenomenal pace Thinxtra – backed by cornerstone investor Rakon – has risen from start-up to being a key IoT enabler and network provider in the Asia Pacific region. Thinxtra is rapidly deploying Sigfox's low cost, Low Power Wide Area Network (LPWAN) technology to enable devices on home appliances, livestock, gas bottles, courier packages and many more applications to relay short messages via the internet to our pc, smart phone or tablet. Smoke alarm battery dead? Gas bottle low? The need for manual checking may soon be a thing of the past.

For the financial year ended 31 March 2017, Thinxtra CEO Loic Barancourt says establishing relationships with key partners and securing connection deals have been significant milestones for the company.

"We've successfully signed major contracts for over 1.5 million connections on the Sigfox network with over 50 million potential connections in the pipeline. The partnerships we have established with businesses like Kordia and Silicon Controls and early adoption from local universities, government and institutions is rapidly transforming the business."

Barancourt says Rakon's investment (42% share at FY2017) has created multiple advantages.

"Having Rakon as an investor and partner is bringing low cost Sigfox solutions to the market, which will help us in the long run. Our relationship with Rakon has enabled Thinxtra to be a strong New Zealand influencer and is a strong reference for Thinxtra when talking to large customers or institutional investors. Additionally, Bryan and Brent bring solid technical, commercial and financial experience and governance to the Board."

He says the next 12 months look set to be even bigger.

"We're excited by the potential, we are first to market and, as we expected, Australia and New Zealand are early adopters and do not hesitate to commit at scale to leverage the IoT. Short-term plans include finalising the roll-out of the network in Australia and New Zealand and starting the roll-out in Hong Kong to cover 95% of the population. We will also be launching more products and verticals, our own IoT platform to provide complete end-to-end solutions and a new IoT incubator programme, and of course enabling more and more customers to roll-out their projects as devices become available."

So how has Rakon been taking advantage of its association with Thinxtra?

Rakon IoT Business Development Manager Kevin McAloon says Rakon identified LPWAN technology as an important part of the emerging IoT communications ecosystem at an early stage.

"Working closely with Thinxtra has enabled us to create relationships with end customers in both Australia and New Zealand. Investing in Thinxtra is also giving us unprecedented access to the Sigfox LPWAN ecosystem and gives us an in-depth understanding of industry requirements and real problems that need to be solved. For example, Thinxtra has created a global development kit themselves and we have worked with them to resolve an issue with the frequency stability for that solution. As a result we have developed Rakon TCXOs at a unique frequency for their requirement, and delivered them ahead of any other supplier."

Working closely with Thinxtra has enabled us to create relationships with end customers in both Australia and New Zealand.

Kevin McAloon
Rakon IoT Business Development Manager

Thinxtra Highlights

- Raised AU$16 million and now raising an extra AU$15 million to finalise the roll-out of the Sigfox network in Australia and New Zealand (ANZ) and expand to Asia.
- Opened subsidiaries in New Zealand and Hong Kong and opened sales offices in Victoria, Western Australia and Queensland.
- Signed up major deals for over 1.5 million connections on the Sigfox network and capturing over 50 million potential connections in the pipeline.
- Reaching coverage of 71% of the Australian population and 89% of the New Zealand population.
- Grew from six to 34 staff and five Directors from major companies (Rakon, Engie, Macquarie Bank).
- Received historic backing from the Government of South Australia to achieve a full state roll-out, to support regional and rural economic development.
- Launched Smart Council programme (www.thinxtra.com/smart-council) with 10+ councils.
- Launched Coverage-as-a-Service (www.thinxtra.com/ineedsigfox) to cover remote areas (for smart farming, smart mining and environmental monitoring).
- Signed up 130 local ecosystem partners (platform suppliers, device makers, system integrators and consultants).
- Signed up five universities in ANZ to develop IoT solutions and educate students on LPWAN technology for the IoT.
- Participated in 48 events and supported two IoT hackathons where the winning teams all used Sigfox connectivity.
- Demonstrated the first Sigfox–based water pulse meter in Australia at the Australian Utility Week in Sydney.
- Launched a partnership with Australian tracker designer: Digital Matter for a commitment to 100,000 GPS trackers.
- Launched Xkit, Thinxtra's own Sigfox global development kit. Already there are sales from multiple Sigfox operators around the world, including Sigfox themselves. (www.thinxtra.com/xkit).
- Softly launched Thinxtra's first range of six Sigfox ready products to Sigfox operators to be shipping from end of June 2017.

Rakon IoT Developments

IoT Module – Developing a Sigfox Connectivity Module with GNSS Receiver
Rakon has developed a Sigfox connectivity module with a GNSS receiver and accelerometer to ensure that a high quality solution exists for the ANZ market. This module successfully connected and sent messages containing its precise location on the Sigfox network in both Auckland, New Zealand and Sydney, Australia in November 2016. This effort has the potential to create a new business model for Rakon beyond its traditional Frequency Control Product (FCP) market.

Small Size Low Height TCXO
Rakon is building strong relationships with the chipset companies who make the transceivers for the LPWAN market. One of these customers requested a low height TCXO for use in their solution. Rakon has been able to meet this request, further increasing its engagement in the LPWAN ecosystem.

High Frequency and Small Size Crystal
Typical frequencies for crystals are in the range of 20–50 MHz. One solution in the IoT space required a small crystal with a frequency >55 MHz. Rakon met this challenge and offered samples of a crystal in a 2.0 x 1.6 mm size package at the requested frequency, therefore enabling the customer to concentrate on their solution, instead of being limited by the crystal component.

CMOS Output TCXO – 3.2 x 2.5 mm
Traditionally, Rakon's smaller TCXOs were only available with a clipped sinewave output type. Due to a need for CMOS output in a 3.2 x 2.5 mm size for an IoT application, Rakon has met this request and now has an ability to offer the preferred CMOS output type TCXO in smaller size footprints.

In some cases the solution that end customers are seeking is not a frequency control product, or a Sigfox module. These cases give Rakon insights into real problems that need to be solved. This interaction has led to the identification of opportunities for new future business models.

Glossary

Crystal (Xtal)
At the heart of XOs, VCXOs, TCXOs and OCXOs are quartz crystals, which are designed to resonate with electrical stimulation.

Crystal Oscillator (XO)
An XO is a quartz crystal combined with oscillation circuitry to generate a repeating electric signal.

Digital Pulse Compression Sub-System (DPCSS)
Fully programmable system solution used to upgrade an existing radar and extend its life.

Oscillator
A circuit or device. It generates a repetitive electric signal and consists of a resonator and a few electronic components.

Oven Controlled Crystal Oscillator (OCXO)
Crystal oscillator that uses a miniaturised oven to keep its internal temperature constant.

Oven Controlled SAW Oscillator (OCSO)
Oven controlled oscillator using Surface Acoustic Wave (SAW) technology, instead of a quartz crystal.

Temperature Compensated Crystal Oscillator (TCXO)
A crystal oscillator with additional circuitry to remove frequency variations due to temperature change.

Voltage Controlled Crystal Oscillator (VCXO)
Crystal oscillator with an adjustable output frequency.

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