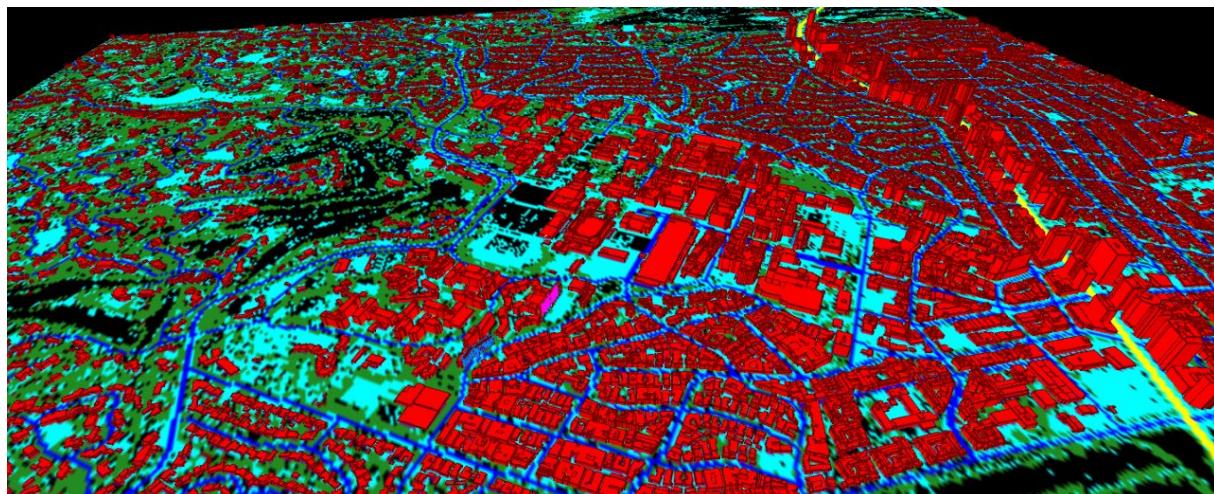


# Annual report 2019

## *A milestone year*

Full year 2019 (1 January – 31 December 2019)

- Total revenues amounted to 47,4 MSEK
- Operating results amounted to -23.9 MSEK
- Net results amounted to -24.5 MSEK
- Earnings per share amounted to -1.22 SEK
- Cash at the end of 2019 amounted to 10.8 MSEK



This is the English version of the Annual Report. The Swedish is the official version. It takes precedence over the English one should any differences be found.

# Words from the CEO

*In 2019, Ranplan registered more than a doubling in net sales on the back of a milestone purchase order from our reseller Marubun in Japan. Losses from operations were largely on a par with those of 2018, but, notably, the Company generated a slight surplus before R&D (nothing of which capitalised). After experiencing delays to the finalisation of several contract negotiations in the latter part of 2019, the Company managed to close a significant partnership with China Unicom Network Technology Research Institute in the very beginning of 2020. Commercial discussions continue with leading customers and partners in most part of the world. Underlying demand remains strong, spurred by the 5G investment wave, industrial applications, greater emphasis on automation and optimising before and after the initial deployment of wireless networks.*

*"Whilst the second half of the year did not meet our expectations in terms of revenue recognition, we take solace in recent contract wins, ongoing field trials with existing and prospective customers, solid inflow of government-sponsored research projects, encouraging feedback on our latest product launches and near-term roadmaps, as well as the dedication, expertise and tenacity of our workforce. We wish to reiterate that the very nature of the Company's operations – characterised by extraordinarily rich gross margins in combination with exceptionally high R&D expenses (72% of sales in 2019) - entail that its financial performance may exhibit marked fluctuations between consecutive reporting periods",*

**As the decade of real 5G** begins to dawn, Ranplan sets its sights on broadening its offerings, cementing its product leadership and expanding its market reach. To this end, it welcomes system development and go-to-market partnerships which complement its own R&D and direct sales channels. Its pioneering mission is to spearhead holistic wireless design at a time of heightened interest in the deployment of 4G/5G networks within the walls of and in close proximity to buildings. Private wireless networks, buoyed by CBRS, are set to bolster demand.

**Since the timing of new contracts** or other forms of commercial arrangements are subject to considerable uncertainties – especially in these times characterised by considerable anxiety associated with COVID-19 - it is not appropriate to provide any financial guidance for 2020 or beyond. Even so, our ambitions remain clear and our directions are steered by fascinating opportunities, buoyed by the criticality of 5G connectivity, optimisation and automation of network management systems. In 2020, special efforts will be devoted to extracting maximum efficiency from existing resources, refining the decision-making framework and reinforcing our leadership in HetNets.



Per Lindberg interim CEO, Ranplan Group AB

## Summary

*For the first time in its history, Ranplan made a profit from operations before R&D (none of which being capitalised) in 2019. Revenues, drawn from both commercial products and research projects, more than doubled (as expressed in Swedish Krona) for the second consecutive year. The product portfolio was reinforced by the introduction of Maxwell, the next generation of radio propagation engines, specifically designed for 5G mm waves, open interfaces and cloud computing in mind. The Company gained precious experiences from its landmark contract in Japan which brings its suite of cutting-edge radio planning and workflow management tools into the realm of OSS integration in close partnership with leading operators and software system architects. As an integral part of its organisational development, several key recruitments were made at the senior management levels.*

**Total revenues** in 2019 amounted to SEK 47.4 million. Asia, outside China, rose to become the single largest region (thanks to the breakthrough order in Japan).

Operating income amounted to minus SEK 23.9 million. In this context, it should be noted that the Company has chosen to incur all R&D expenses directly (no capitalisation of assets takes place and not amortisation is incurred). As an alternative measure of performance, investors may note that in 2019 the Company had a surplus of SEK 6.0 million at the operating level before R&D expenses.

**At the end of 2019**, the Company held cash and cash receivables of SEK 46.3 million before and SEK 26.2 million after deduction for current liabilities of SEK 20.1 million. Financial debt of SEK 20 million derives from successive drawn downs of the credit line of SEK 30 million that the current CEO (interim) and member of the Board has made available to the Company (see press release of 17 July 2019).

**Shareholders' equity** amounted to SEK 6.1 million, corresponding to an equity ratio of 13%, at the end of 2019. It should be noted, though, that the balance sheet contains no intangible assets, neither in the form of patents (of which there are many), nor in the form of capitalised R&D. Had the Company elected to assign values to these elements, then the balance sheet would appear much more robust. In the space of the last three years alone, cumulative R&D spending amounts to well over SEK 70 million.

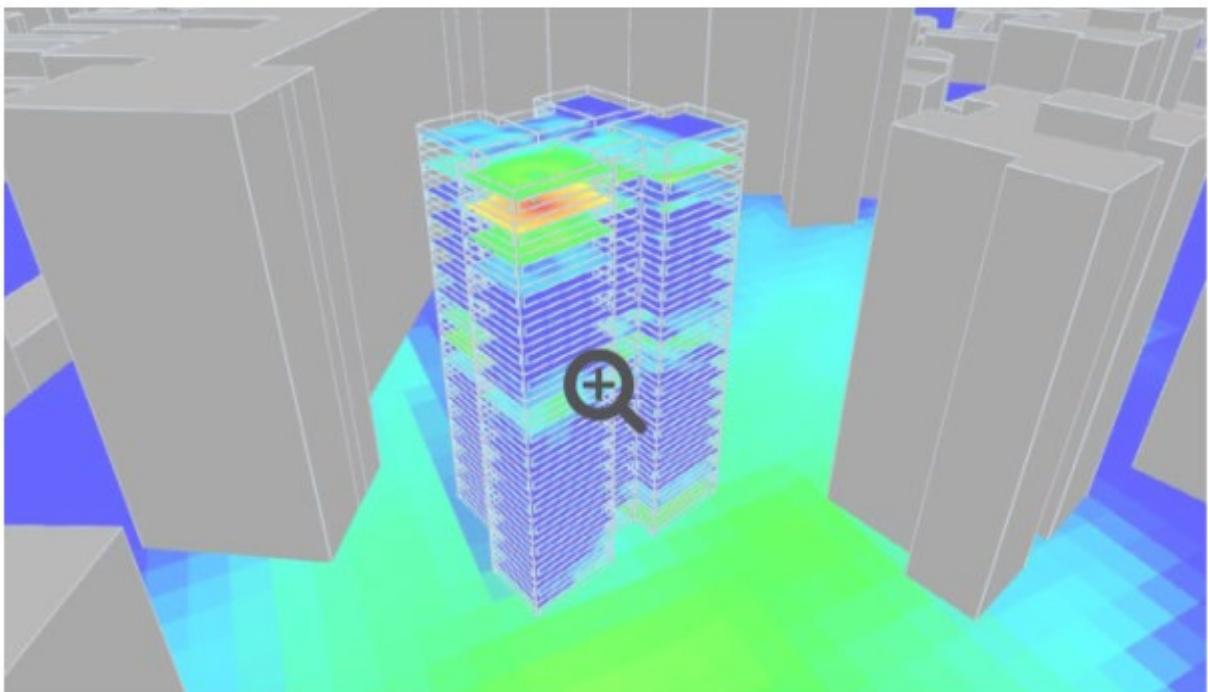
## Operations

In 2019, Ranplan progressed on several operational fronts. A **landmark contract** worth about USD 2.5 million announced in February 2019 fuelled confidence in the Company's ability to meet the most exacting requirements from customers at the absolute frontier (see press release of 4 February 2019). This milestone agreement brought Ranplan into the future of OSS integration and automation – a domain which opens up a spectrum of new opportunities where its software for the planning, optimisation and automation of wireless networks – before and after the initial deployment of wireless networks - can generate tangible benefits.

Towards the end of the year, the next generation of radio propagation engines, dubbed **Maxwell** – specifically designed for 5G mm waves, open interfaces and cluster computing in the cloud – saw its commercial debut. The Collaboration Hub, previously known as Manager, evolved further into a state-of-the-art workflow management tool – inspiring interests from customers in many parts of the world. To underline its strategic mission to enable automation, foster competition (by offering customers freedom of choice) and promote innovation, Ranplan Wireless became a member of O-RAN in October 2019. Its vision to offer customers software components that readily operate in open architectures, conducive to interoperability in a multi-vendor setting is perfectly aligned with the central philosophy of this global alliance.

In the latter part of November 2019, Ranplan was named as a key participant in an EU-Horizon sponsored project revolving around **Network Slicing**. This fascinating undertaking brings Ranplan in partnership with CNR of Italy, Orange Labs of France and University of Cambridge.

**Ranplan is the pioneer of HetNet design – allowing outdoor and indoor networks to be coordinated**



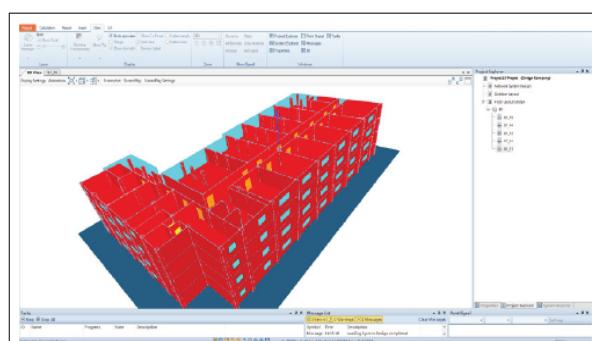
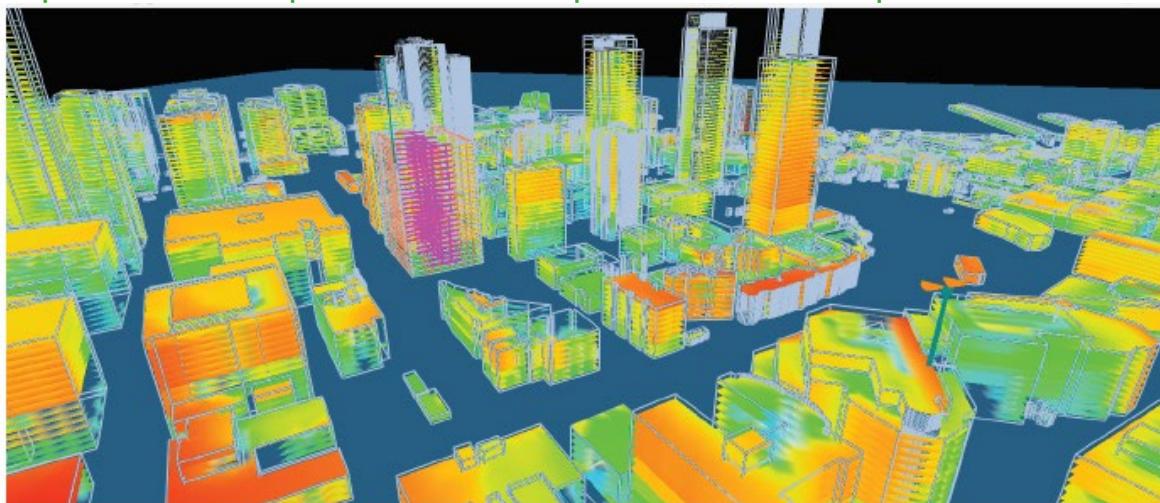
*Simulate in-building and dense urban environment coverage*

# Maxwell – ready for the cloud

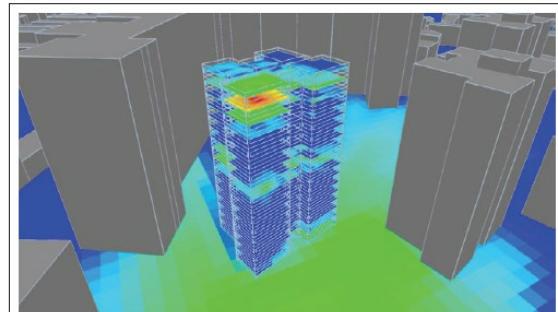
Officially launched on 27 Jan, Ranplan Professional 6.0 is the world's only all-in-one, planning, optimisation and simulation solution for Small Cells, DAS and Wi-Fi networks across indoor and outdoor environments that also integrates with macro-cell networks. By means of simultaneous modelling, Ranplan's intelligent algorithms and deterministic 3D ray-tracing capabilities are able to automate the network design process to optimise coverage and capacity. Key to this is the new propagation engine, Ranplan Maxwell™ – a state-of-the-art technology offering significant performance improvements as evidenced by the results of leading trial customers. Ranplan Maxwell is designed to operate in any computing architecture, within the desktop or the cloud.

In 2020, Ranplan will be showing the latest capabilities of its flagship platform, Ranplan Professional. Versions 6.x are powered by the next generation propagation engine, Ranplan Maxwell, a vector-based deterministic, true 3D ray-launching/tracing engine, providing increased accuracy and faster prediction speeds. This new edition platform also paves the way for a cloud native and multi-vendor environment, embracing open interfaces and automation.

Ranplan Professional 6.x presents customers and partners with enhanced capabilities



Automate 3D model build

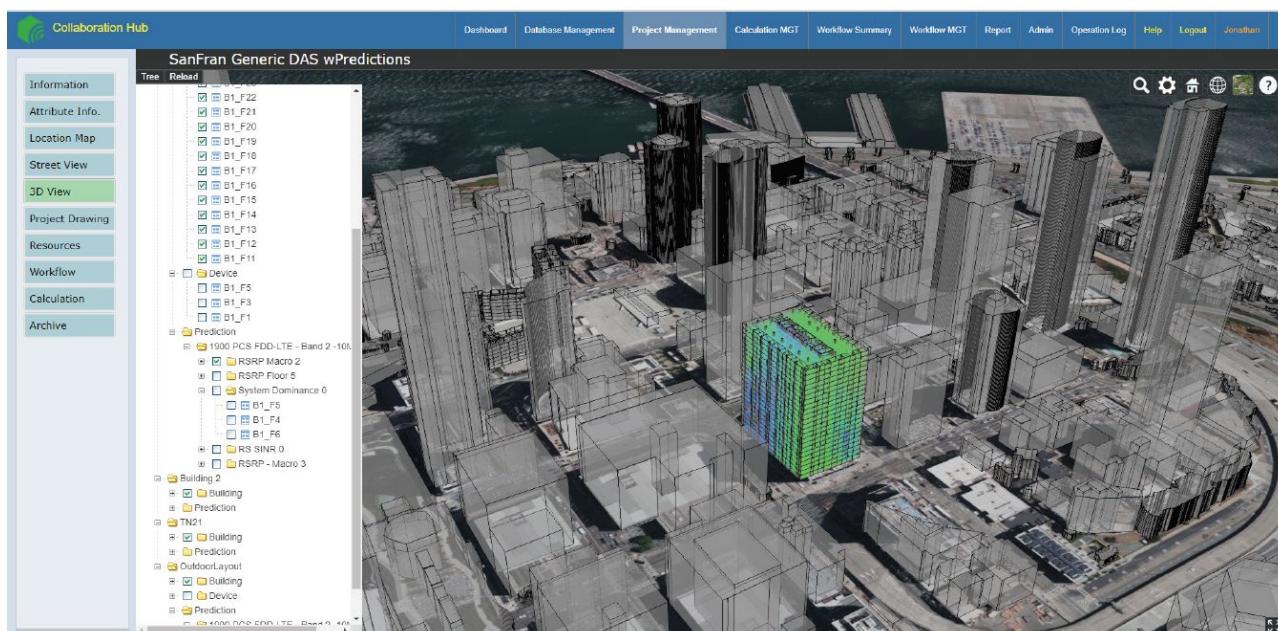


Simulating in-building and dense urban environment coverage

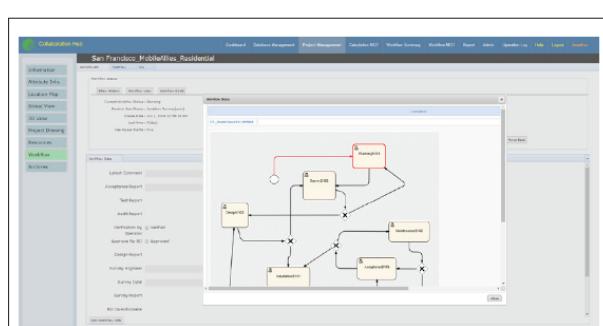
# Collaboration Hub (C-Hub)

Ranplan Collaboration Hub (C-Hub) is a cloud-based and an easy-to-use network planning project management and workflow platform. Users gain real-time 360-degree insights into project delivery from inception through to final deployment and maintenance. Interaction with Ranplan's distributed cluster-computing frameworks provides operators with increased accuracy, faster network performance evaluations and predictions required for real-time as well as near real-time automated network optimisation. The C-Hubs comes with advanced 2D and 3D project visualisation excellence, customisable dashboards and reports, device database management and, most importantly, seamless integration with Ranplan Professional and Ranplan Tablet.

In customer dialogues, Ranplan will be featuring its Collaboration Hub (C-Hub), a secure, cloud-based project management and workflow platform that allows operators, system integrators and equipment vendors to work cohesively in tandem while overviewing the status of ongoing projects in real-time. The C-Hub is already being used to support OSS integration in Japan.



3D visualisation of outdoor/indoor prediction



Simple project workflow scenario

# Research Projects

Government sponsored research projects lie at the heart of Ranplan's operations. They represent a kernel of the firm since inception. These activities - which encompass a number of areas of great significance and are in the main tied to specific deliverables - made up a noticeable proportion of total revenues in each of the past three years. Ranplan's success in this special arena serves to illustrate the breadth and depth of its capabilities, stretching into not only the next generation of network planning and optimisation tools, but also adjacent fields such as data analytics, AI and machine learning. Commercial partners include inter alia Orange Labs, China Unicom and Telenor. One most recent example concerns Network Slicing – a key ingredient in 5G.

Since 2008, Ranplan Wireless Limited, the R&D HQ in the UK, has participated in **14** R&D projects (worth over £6.0M to Ranplan) funded by EC FP7/H2020, Eurostars and Innovate UK. Of these **five (5)** have been successfully completed in 2012, 2013, 2015, and 2019:

- Automatic radio access network planning and optimization ([IAPP@RANPLAN](#))
- Indoor radio network planning and optimization ([iPlan](#))
- Wireless Friendly and Energy Efficient Buildings ([WiFEEB](#))
- Development of a software tool to Design Buildings with Tailored Wireless Performance ([Build-Wise](#))
- Deploying High Capacity Dense Small Cell Heterogeneous Networks ([DECADE](#))

At this stage, Ranplan Wireless Limited is actively involved in **nine (9) ongoing projects**, revolving around essential pillars of 5G: 3D MIMO Arrays, IoT, mm waves, network slicing:

- Indoor small-cell Networks with 3D MIMO Array Antennas ([is3DMIMO](#))
- [DAWN4IoE](#): Data Aware Wireless Networks for Internet of Everything
- [ODIN](#): Online Data Integrated Networks
- [CORRELATION](#): Characterization and prediction of service-level traffic for future sliced mobile network
- Millimetre wave communications in the Built Environment ([WAVECOMBE](#))
- Powering Smart mobility with Data Analytics ([PUBLIC](#)):
- Cooperative Connected Intelligent Vehicles for Safe and Efficient Road Transport ([COSAFE](#))
- Crowd Blackspot Intelligence for 5G Rollout ([COCKPIT-5G](#))
- Network Slicing - “Big dAta aNalYtics for radio Access Networks” ([BANYAN](#))

# Ranplan Group

Ranplan is a leading provider of wireless network planning tools for in-building networks.

Ranplan is a software company that markets a suite of solutions that allow mobile operators and telecommunication equipment vendors to cost effectively and accurately plan, design and optimise 4G (LTE), 5G and Wi-Fi wireless networks in buildings and in outdoor urban environments.

The purpose of an in-building wireless network is to provide enhanced network coverage and/or capacity when the existing outdoor network is not able to adequately service the demand. Coverage may be poor due either to high penetration losses caused by the building structure or the latest materials used that are designed to improve thermal performance of the building. In dense urban environments, adjacent buildings may create an RF barrier that blocks coverage from nearby outdoor networks. Tall buildings typically have poor coverage on upper floors since outdoor antennas, many floors below, are specifically designed to suppress energy radiating above the horizon. Capacity may be an issue in venues such as stadiums and convention centres where many thousands of users may be trying to simultaneously access the network.

Today, over 80 % of mobile data traffic is generated in buildings with only approximately 2 % of commercial buildings having a dedicated in-building (cellular) wireless network. Research also shows that in-building wireless networks could increase the value of the property by 28 % on average. With the roll out of 4G (LTE) and 5G technologies, the need to build in-building wireless networks has increased and will continue to increase. In addition, the need for more accurate network planning to maintain customer satisfaction is expected to drive the growth in the wireless network planning tool market.

Ranplan Group AB has been listed on Nasdaq First North Stockholm since June 2018, trading with the ticker RPLAN, ISIN: SE0011178201.

Ranplan's operational ambition is to increase its position in the fast-emerging wireless market by providing quality software to enable mobile operators and telecommunications equipment vendors to plan wireless networks more accurately and cost effectively. Given the market climate is beneficial and that the company is delivering on its strategy, the company's aspiration is to increase sales appreciably and generate free cash flow from operations.

# Board of Directors Report

## Information regarding the operations

2019 marked a breakthrough year for Ranplan Group AB. In February, a strategically important order worth around USD 2.5 million via our reseller Marubun in Japan, for one of the four 5G operators in the country, was presented. A significant agreement with Tricomtek for resale of Ranplan's software products in South Korea – a country on the absolute frontier of the radio networks of the future – was entered into. Towards the end of 2019, Ranplan Wireless Networks Limited was granted a leading role in an EU-Horizon funded Network Slicing Project to a value of at least EUR 600k over a period of four years. At the very beginning of 2020, Ranplan announced that China Unicom Network Technology Research Institute had selected Ranplan as its supplier of software tools for indoor radio planning at an initial value of approximately USD 400k, which is expected to be revenue recognised in calendar 2020.

The Company also achieved solid progress with respect to the development of its products in 2019. A new version of Professional (6.0) – including the next generation of radio propagation engines, dubbed Maxwell – armed with refined precision, support for 5G mm waves and capacity to take advantage of cluster computing within the cloud was launched. Major investments were made to enable automation of both the planning and the operation of wireless networks. In October, Ranplan became a formal member of O-RAN – an alliance of operators and supplier whose philosophy and principles are well aligned with the core values that the Company wishes to represent.

The Board of Directors was altered in conjunction with an Extraordinary General Meeting in Stockholm on 14 August when Tomas Isaksson was elected as a new ordinary member and Professor Jie Zhang took over the role as Chairman of the Board from Mats Andersson. In June 2019, it was announced that Alastair Williamson had chosen to relinquish his position as CEO and that Per Lindberg had been appointed as interim CEO from 1 September 2019. The Company shifted its reporting cycle to half-year periods in September 2019. At around the same time, it was announced that Anthony Sutton had been recruited as Commercial Operations Director and Jon Ullmark as Chief Strategy Officer. The number of full-time employees worldwide increased from 64 at the end of 2018 to 72 at the end of 2019.

## Economic Development for the Group and the Parent Company

The 2018 figures were restated (see detail in the Restatements section below).

	NOTE	MAY-DEC 2018*	JAN-DEC 2019
<b>Group</b>			
Net income, KSEK		18,775	47,372
Result after financial items, KSEK		-20,113	-24,504
Total assets, KSEK		36,797	46,324
Number of employees	4	61	62
Equity divided by assets		81%	13%
Return on assets		-55%	-48%
Return on equity		-67%	-396%
<b>Parent company</b>			
Net sales, KSEK		0	5,365
Result after financial items, KSEK		-1,642	-658
Total assets, KSEK		51,271	72,549
Number of employees	4	0	2
Equity divided by assets		99%	69%
Return on assets		-3%	-1%
Return on equity		-3%	-1%

\*restated

## Financial summary

In 2019, the reported revenues from operations amounted to SEK 47.4 million, corresponding to a strong growth, compared with the combined accounts for 2018. Net sales, related to commercial products, amounted to SEK 36.4 million. Other Revenues emanating from research projects amounted to SEK 5.9 million. Other Operating Revenues associated with R&D related tax credits were estimated at SEK 5.1 million.

The gross margin, which is calculated as the ratio of the gross product and net sales related to commercial products, was maintained around 97% - levels which are typical for the more or less pure licensing model employed (without any software components from third parties; resale of maps from a third party can however be included in net sales which was the case in 2019).

The net loss amounted to SEK 24.5 million, compared with a net loss of SEK 20.1 million for the period May-December 2018. Costs for (1) R&D increased to SEK 30.5 million, of which no part was capitalised in the balance sheet, (2) sales and marketing increased to SEK 27.0 million, while (3) those related to administration amounted to SEK 12.4 million.

No income tax burdened the results, but a so called "withholding tax" on certain sales has been reported as other operating expenses (which can be recovered in certain situations).

The balance sheet expanded in 2019. Current assets increased to SEK 46.3 million versus SEK 36.5 million at the end of 2018. The increase is mainly attributable to delayed payments

related to both commercial customers and government authorities (receivables related to tax credits amounted to approximately SEK 9 million). Cash amounted to SEK 10.8 million at the end of 2019 (SEK 21.3 million at the end of 2018).

Fixed assets declined to negligible levels at the end of 2019 as depreciation surpassed investments. Shareholders' equity amounted to SEK 6.2 million. This level should be judged against the fact that the Company has not assigned any value in the balance sheet to either the patent portfolio or to R&D investments. Current liabilities amounted to SEK 20.1 million at the end of 2019.

Operating cash flow amounted to minus SEK 31.3 million before and minus SEK 10.8 million after financing activities.

R&D expenditure by Ranplan companies has grown over the past 3 years from SEK 18.3 million in 2017, to SEK 23.6 million in 2018 to SEK 30.5 million in 2019.

## Financing and capital requirements

The Board of Directors and management continuously review the Group's capital needs on the basis of budget and forecast to assess whether the company has the financial resources required to conduct its operations in accordance with the strategic plan decided by the Board of Directors. As of December 31, 2019, the Group's cash and cash equivalents amounted to SEK 10.8 M, while a total of SEK 20 million of the total credit line of SEK 30 million was made available during the year 2019 by the Company's interim CEO Per Lindberg. As the company and the Group are in a commercialization phase, the Board of Directors estimates that the business may from time to time need additional working capital. To increase the company's flexibility and ensure a sufficient liquidity buffer for the company going forward, the Board has therefore decided to extend the credit line from Per Lindberg to a total of SEK 50 million under the same conditions as before. The credit line will be available until July 17, 2024.

## Dividend

The Board of Directors recommend that no dividend be paid for 2019.

## The shares

No change of the number of outstanding shares were recorded in 2019. 625 000 long-term stock options ("warrants") were sold to members of staff at fair value (theoretical market price).

	31 DEC 2018	31 DEC 2019
Shares (thousands)	20,116	20,116
Warrants outstanding (thousands)*	0	625
Share price (SEK)	5	10.8

\*Strike price at SEK 20.60, exercisable in Sep-Dec 2022.

<b>Shareholders as of 31 Dec 2019*</b>	<b>No of shares</b>	<b>Ownership</b>
Jinxing Xue	8 084 887	40%
Hongbing Lu and Qimei Wu	2 624 070	13%
Per Lindberg	2 125 750	11%
Jie Zhang and Joyce Yuhau Wu	2 067 996	10%
Other	5 213 109	26%
<b>Total</b>	<b>20 115 812</b>	<b>100%</b>

\*At the end of 2019, 625 200 warrants, exercisable at SEK 20.60 were outstanding

## Significant events during the period

Ranplan Wireless secured a significant order with an initial value of USD 2.5 million (SEK 25 million) for its suite of network planning tools from Marubun Corporation, its reselling partner in Japan. This landmark contract demonstrates the benefits of integrating Ranplan's tools into the operating support systems (OSSs) of mobile operators keen to take automation to a higher level.

Ranplan entered into a reseller agreement with Tricomtek, a Seoul-based company, to sell Ranplan software solutions into the South Korean market.

Ranplan won a leading role in a high-profile Network Slicing Project sponsored by the EU. The monetary value is expected to amount to at least EUR 600k over a four-year period.

## Customers

The Company registered revenues from more than 40 customers in 2019. Japan became the single largest market, courtesy of the breakthrough order in the beginning of the year. Demand for the Company's products and services is satisfactorily good. Delays to negotiations and tenders, however, have in certain cases had a negative influence on net sales during the latter part of the year.

## Employees

As of 31 December 2019 the Company had 72 full-time employees. More than half the employees are involved in research and development, which is conducted mainly from the operational headquarter outside Cambridge, the United Kingdom.

## Products

In the beginning of 2020, the Company launched a new version of Professional, including a refined radio propagation engine, called Maxwell, which is prepared for 5G mm waves and integration in a cloud environment, and has attracted considerable interest from existing and prospective customers across the world. The transition to higher frequency bands, much more exacting requirements on reliability, and the release of much more spectral resources, as well as the need for even greater degree of automation of both the planning and the operation of wireless networks constitute factors which spur demand.

## Accounting principles – fixed assets

Ranplan does not capitalise its own or third party software or computers (portable, stationary and servers). Nor does the Company currently assign any value to its growing and significant patent portfolio in the balance sheet. At the end of 2019, there were no intangible assets in the Company's balance sheet and a mere SEK 0.05 million of tangible fixed asset. Depreciation in 2019 amounted to SEK 250 thousand.

## Remuneration

Senior management did not obtain any variable compensation for 2019. To align the long-term financial interests of senior management and key employees with those of shareholders, the Board of Directors has introduced a share option programme extending over three years. In the autumn, 625 000 long-term share options (warrants) were sold at an estimated market price (according to Black Scholes) not only to members of senior management but also to a large number of other members of the workforce.

## Senior management

Senior management has changed in the course of 2019 and the beginning of 2020. Per Lindberg assumed the role as CEO (interim) as of 1 September 2019. At the end of February 2020, George Wells (Group Chief Accountant since August 2018) was appointed as Chief Financial Officer. In the autumn of 2019, Anthony Sutton was recruited as Commercial Operations Director, or Chief Commercial Officer) and Jon Ullmark as Chief Strategy Officer. Hui Song has continued in his role as Chief Technology Officer. Jie Zhang, the founder, remains as Chief Scientific Officer while Joyce Wu, founder, recently has been appointed as Chief Operating Officer), in addition to her role as Global Head of Human Resources.

## Board of Directors

Since 14 August 2019, the Board of Directors has comprised four members:

Jie Zhang (chairman), Wendy Yang, Tomas Isaksson and Per Lindberg. Tomas Isaksson was elected into the Board of Directors at an extraordinary general meeting on 14 August. Lars-Inge Sjökvist and Mats Andersson (in his capacity as chairman) acted as members of the Board of Directors from 29 April 2019 until the end of July 2019 and 14 August 2019, respectively. In compliance with the Swedish Companies Act, members of the board are elected in connection with the AGM after each calendar (fiscal) year.

## Corporate Governance

In 2019, Ranplan Group AB has held 10 scheduled meetings. In addition, numerous other informal discussions or meetings have taken place between members of senior management and members of the Board. The work of the Board of Directors has centred, inter alia, on developing the organisation, its business plans and strategy with the aim of developing in unison with market dynamics in a changing environment. The Board also regularly reviews the company's balance sheet, financial position, funding requirements, investment needs and risks; the latter of which covers both financial and operational matters. Further details can be found in the Risk Factor section contained in this report.

## Nomination Committee

A nomination committee in advance of the AGM has been established by the Chairman of the Board. It consists of Wendy Yang, who represents the largest shareholders, Per Lindberg (interim CEO) and Jie Zhang. The duty of the Nomination Committee is to submit proposals related to the composition of and compensation for the Board to the AGM. It is also assigned the task of submitting a proposal concerning the election and remuneration of auditors and procedures for the nomination committee in advance of the AGM in 2021.

## **Legal proceedings**

The Company is not involved in any legal proceedings or disputes of any materiality.

## **Significant events after the end of the financial year**

Ranplan has secured an order worth USD 400k from China Unicorn Network Technology Research Institute. According to the terms of the agreement, the contract is expected to be converted into revenues in calendar 2020.

## **Proposed appropriation of profits**

The following earnings are reported at the annual general meeting:

<b>(KSEK)</b>	
Share premium reserve	51,552
Retained earnings	-21,673
Net loss for the year	-24,504
	5,375

The board recommends the following allocation of the result

<b>carried over</b>	
	5,375

# Risk factors

An investment in the securities of Ranplan is associated with risks. The business is and can be affected by a number of factors which are not possible for the Company to control, either in part, or at all. These factors could have an adverse impact on the Company's business, financial position and profits, or could lead to a decrease in the price of its securities so that and as a result of that, the investors may lose their investment, in part or in full. Some of the risks are associated with the Company, while other risks do not have any particular connection to the Company. Any investor considering an investment in Ranplan should carefully analyse the risk factors described below as well as any other information before deciding on whether to make an investment in Ranplan.

## Risks relating to the Group's business and market

### Risks related to the effects of the 'new corona virus' (COVID-19)

Worries and anxieties associated with COVID-19 which has accentuated since the end of February 2020 have at the time of this writing restrained the Company's abilities to travel and meet with customers, authorities, partners and investors. A poignant example is tradeshows, such as the Mobile World Congress 2020 in Barcelona, which are cancelled or postponed. To the extent possible, electronic equipment, such as video conferencing facilities, has been used to counteract the negative effects in the short-term. This applies also to the Company's operations. Essentially all employees are working from home since the beginning of March. Although these changes have caused a need for certain temporary adjustments, the Company – which develops software – is not dependent on the delivery of physical products. No problems with our supply can be discerned to date. Even so, one may envisage softer demand in the short-term, prompted by the financial consequences of the slowdown in economic activity that has been seen in the past few weeks. Once the situation has stabilised, however, demand ought to strengthen, as authorities recognise the importance of well-functioning wireless networks for both human and machine-style communication. Interest in accurate radio planning and optimisation before and after the roll-out of wireless networks ought to accelerate as a direct consequence of the experience which now is acquired. This conclusion applies in particular inside the walls of buildings – often a prerequisite to be able to work effectively from the home. Already today, one can detect that China is intensifying the pace of 5G investments.

It is today difficult to evaluate if agreements with customers and suppliers will be influenced by COVID-19, and, if so, to what extent. Authorities try to mitigate cash liquidity issues through the launch of enormous rescue packages whose purpose is to help normalise business activity. If the Company were to be hampered by delayed payments or bad debt, a need for additional funding might be amplified. In this context, it should be said that the Company's ability to sell new shares (either via a directed or a rights issue) may well be affected by the degree of uncertainty within the financial system. If this were to prove too difficult, then the Company intends to investigate other solutions in pursuit of securing near-term funding for the Company.

## Risks relating to early stage of development and future funding

Historically, the Group has not been able to generate sufficient cash flow to satisfy its working capital requirements. The Group's activities have been funded by contributions from its existing shareholders. There is a risk that the Company will record operating losses, or at least not be able to generate enough profits to finance its activities. As a result, the Group would continue to be dependent on financing from external sources. There is a risk that external financing may not at all times be available or, if available, may not be offered on terms acceptable to the Company. If additional financing is raised through the issuance of new shares or equity related instruments, control of the Company may change and the interests of shareholders in the net assets of the Company may be diluted. If the Company is unable to secure financing on acceptable terms, the Company may have to cancel or postpone certain of its planned development or expansion activities. Reliance on external financing could adversely impact the Company's business, financial position and profits in the future.

## **Key personnel**

The Company is highly dependent on its ability to retain and attract skilled personnel. Should the Group lose and not be able to replace any of its key personnel it may interrupt ongoing projects as well as other development plans laid out for the Group. Moreover, the Group is dependent on new hiring and retaining certain skilled personnel to continue its growth and to reach future success. If the Group cannot maintain its ability to attract skilled personnel then this may adversely impact the Company's business, financial position and profits in the future.

## **Risks relating to the quality of the product**

The Company is reliant on its ability to develop and deliver products of a certain quality. Even if the Company deems the products to be of a certain quality, the demand from its customers may deviate from what the Group is producing. The Group's operations are currently expanding in order to meet the increasing demand from the market and enable delivery of a larger quantity and complementary set of products without losing quality. If the Company is unable to meet the demands of its customers in relation to quality and expectation, this may have an adverse impact on the Company's business, financial position and profits in the future. Furthermore, the demands on the market may change and cause the Company to adjust its products. Should the Company fail, inter alia, by taking the wrong direction on development projects, not develop the products or not reach the appropriate customers, then this may adversely impact the Company's business, financial position and profits in the future.

## **Competition**

Competitors may be ahead of the Company and in addition new competitors could emerge. Competitors may have greater financial resources compared to the Company. There is also a risk that competitors develop products which are more efficient and may sell at a lower cost. Moreover, other technologies may arise, which proves to be better suited or superior to the products of the Company. Intense competition may lead to adverse price development and/or heightened quality requirements. Failure to address these market forces may lead to loss of revenue and market share. Any such circumstances may have an adverse impact on the Company's business, financial position and profits in the future.

## **Risks relating to customers**

The Group's customers consist of both public and private organisations. When dealing with public sector organisations there is a risk that the agreements entered into are customer

friendly in terms of liabilities and obligations. A large proportion of the Group's turnover stems from tenders and procurement. Tenders and procurement processes can be both time consuming and complex and sometimes require involvement of external advisers. If the Company cannot participate in, or participate in and lose, tenders and procurement processes, it may have an adverse impact on the Company's business, financial position and profits in the future.

### **Risks relating to intellectual property rights and trade secrets**

Patents, licenses, trademarks and other registered intellectual property rights are an important foundation for the Group. Intellectual property rights are developed by employees and in some cases with third parties. There is a risk of mis-assigning intellectual property rights or ownership. In addition, rights to certain intellectual property might be uncertain or contested in which case the Company could be forced to take legal action in order to assert its rights. Third party rights could prevent the Group from freely using a technology which may result in the Group being burdened with substantial costs and liabilities or possibly being forced to stop or restrict product development or commercialisation of one or more of the Group's products. In addition, it could lead to litigation which could have a negative effect on the Company's financial position and reputation, even if the outcome of such process would be in favour of the Company. The Group could also be forced to acquire a license in order to continue developing or selling the product and there is a risk that such licenses may not be available on reasonable terms or available at all. If the Group develops products that are protected by intellectual property rights then these rights could be challenged by third parties. The Company is dependent on ensuring that trade secrets which are not covered by intellectual property rights can be protected but there is always a risk that someone who has access to information of great value to the Group disseminates or uses the information in a way which damages the Group from a competition perspective. The aforementioned circumstances may adversely impact the Company's business, financial position and profits in the future.

### **Litigations and disputes**

During the ordinary course of business the Group may become involved in disputes. Such disputes may involve claims for payment and/or correction of work as well as other possible consequences connected to failure to provide products or services. Moreover, the Group may be subject to outstanding payments from customers as well as other situations which could force the Group to take legal action. There is no guarantee that the Group will not be involved in material legal proceedings going forward which could have a significant effect on the Company's business, financial position or profitability.

### **Insurance risks**

Claims which are not covered by the current insurance cover may arise. Moreover, even though a claim is fully covered such a claim may increase the Company's premiums paid to the insurance company. The Company may in the future enter into new markets or develop new products which will require extended insurance coverage. It may not be possible to obtain such extended coverage on favourable terms, or at all. If the Company is unable to obtain sufficient insurance coverage or faces claims which are outside the current insurance cover, it may have an adverse impact on the Company's business, financial position and profits in the future.

## **Currency risks**

The Group has and will continue to enter into agreements subject to payment in other currencies than SEK (mainly USD, GBP and EUR but also other local currencies). The currencies are ultimately recalculated into SEK for inclusion in the Group's consolidated financial statements, which are stated in SEK. As a result, the Company is subject to risks relating to exchange rates, such as fluctuations following from exchange rates movements from the point in time when the agreement has been entered into to the time of payment. In addition, foreign exchange costs may be significant. Currently, the Group does not hedge against foreign exchange rate risks and the said currency risk may have an adverse impact on the Company's business, financial position and profits in the future.

## **Legal and political risks**

The Company is a Swedish company and the main part of the Group's operational activities is carried out in the United Kingdom. However, the Company operates in a global market and the Company has partners, suppliers and customers around the world. Risks may arise as a result of differences in legal systems and changes to legislation and other relevant regulations relating to taxation, customs and excise duties and other conditions applying to the Group's activities in an international market. Rules, regulations and legal principles may differ both relating to matters of substantive law and in respect of such matters as court procedures and law enforcement proceedings. This means that the Company's ability to exercise or enforce its rights and obligations may differ between different countries and any disputes or related litigation may be costly, time consuming and the outcome may be uncertain. In addition, the Company may be affected by factors relating to political uncertainties, sanctions and prohibitions. All of the aforementioned may have an adverse impact on the Company's business, financial position and profits in the future.

## **Tax related risks**

The Company is conducting its business pursuant to its interpretation and understanding of relevant tax legislations and tax agreements as well as other applicable regulations. However, the Company has partners, suppliers and customers in a various number of jurisdictions, and there is no guarantee that the relevant tax authority agrees with the Company's interpretation and understanding of relevant acts, regulations and tax authorities' practices. As a result, the Company's current tax situation may adversely change. In addition, the Company may be subject to possible retroactive adjustments, which will have an adverse effect on the Company's previous assessed taxation. This could have an adverse impact on the Company's business, financial position and profits in the future. It is not possible to predict if the Company will be subject to any new or amended tax regulations, and if so, if the Company's interpretation and understanding of such regulations may be correct. Any non-compliance may, inter alia, lead to payment of additional taxes and/or fines, which may have an adverse impact on the Company's business, financial position and profits in the future.

## **Global economic factors**

The Group is exposed to the general market environment such as supply and demand, inflation and interest rate fluctuations, upswings and downturns and the will to invest, etc. All these factors are outside the Company's control. If an economic downturn occurs, or the economic activity decreases, it may have an adverse effect on the Company's market and consequently have a negative effect on the Company's business, financial position and profits in the future.

## Risks relating to the shares

### The market price of the Company shares

An investment in securities is always associated with risks and risk taking. The price of a newly listed security is often volatile for a period subsequent to the listing. The securities market in general, and for smaller companies in particular, may be subject to significant price and volume fluctuations, which are not possible to predict based on the Company's development or disclosed results. Ranplan is not able to predict how liquid the market may become and to what extent the interest in investing in the Company's shares will increase or maintain. The difference between the selling price and purchase price may from time to time be significant, making it difficult for a shareholder to sell shares at a given point in time and at a price deemed appropriate.

### New issues

In order to, inter alia, raise capital or enable acquisitions the Company may in the future issue additional shares or share related instruments. Such issues may decrease the proportional ownership and share of voting power as well as profit per share of the shareholders in the Company. Moreover, such issues may adversely affect the market price of the shares. Shareholders in countries outside Sweden may be subject to restrictions that prevent them from participating in new share issues and/or limit and complicate their participation in other ways. Such restrictions may lead to their shareholdings being diluted or reduced in value.

### Future dividends

Payment of dividends is decided by the shareholders' meeting and proposed by the board of directors. Any future dividends depend on several factors, such as future results, financial position, working capital, liquidity and the Company's need of investments. Ranplan is in a phase where priority is put on exploiting the growth opportunities that have been identified. As a result, shareholders should not expect to receive any, or very low, dividends over the next few years.

### Nasdaq First North

The company's shares are listed on Nasdaq First North ("First North"). First North is a multilateral trading facility, i.e. not a regulated marketplace. Companies with securities listed on First North are not obliged or forced to comply with the same rules as companies with securities traded on a regulated marketplace, but to less extensive rules and regulations. Such rules and regulations are adapted for smaller and growth companies, and so an investment in a company listed on First North may imply more risk than an investment in a company with securities traded on a regulated marketplace.

As a listed company, Ranplan will be subject to additional rules and regulations. In order to be compliant, the Company may need to establish certain positions as well as adopt certain policies. This may have an impact on the Company's means and may increase its costs. Such increased costs may adversely impact the Company's business, financial position and profits in the future.

# **Group financials**

## **Comments to the Group Financials**

### **Group Income Statement**

#### **Research and development costs**

Approximately three quarters of these costs are the salaries and associated costs of employees working in R&D, most of whom are in Cambridge. Some of the work is contracted out to specialist consulting firms in the UK. The cost of third party software and hardware used by the Ranplan Group in development is the second largest cost source. Patent registration and maintenance is significant. Office rent and services are low. R&D costs increased materially in 2019.

#### **Sales costs**

The majority of these costs are the salaries and associated costs of employees working in sales. Employees are spread geographically around the world. The biggest concentration is in North America. Travel expenses is the second largest cost source, followed by marketing expenses. Office rent and services are low. Sales costs increased materially in 2019.

#### **Administration costs**

Less than half of Administration costs are salary related. In 2018 there was an unusually high expenditure on professional advice due to the listing on Nasdaq First North, but this decreased significantly in 2019.

#### **Other Operating Income**

This income emanates from estimated cash subsidies from the UK government to the Cambridge centred Research activity. Payment for 2018 has been received in 2020, and for 2019 is expected to be paid in the course of 2020.

#### **Other Operating Expenses**

These unusual costs are non-income taxes paid to foreign governments on sales.

## **Group Balance Sheet**

### **Accounts Receivable - trade**

Over half of the Trade Accounts Receivable relate to the UK operating entity which bills customers all over the world except North America. The largest amounts are related to the APAC region.

### **Other Current Receivables**

A large proportion of these items relates to the R&D Tax Credits which were (re 2018) and are expected to be (re 2019) paid by the UK Government in the course of 2020.

### **Cash and bank**

Based on the expectations to turn current assets into cash in the first half of 2020 in combination with preparedness to infuse more capital via emission of new shares, or alternatively through expansion of the existing credit line (or in part thereof), the Company believes it has sufficient capital to fund operations in the fiscal year 2020. It should nonetheless be mentioned that the prevailing virus scare may make it more difficult to raise new capital.

### **Group Cash Flow**

Cash flow in 2019 was negative, in part due to the loss from operations and in part due to the significant increase in receivables from customers and governments. It is estimated that these assets will lead to considerable cash inflow in 2020.

## Group Financial Statements

In this section, data related to the consolidated Ranplan Group AB and its Parent are presented. Please note that the parent company of the Group, Ranplan Group AB was registered on 14 March 2018. Therefore, the information provided below concerns the periods since the listing on Nasdaq First North.

It is particularly noteworthy that, in an effort to increase clarity and transparency, the term total revenues, comprising net sales (from commercial products and services), other income (from research projects) and other operating income (from R&D tax credits), is introduced. Gross profit is measured as the difference between total income and cost of sales with the gross margin calculated as the ratio between gross profit and total income. The 2018 figures have been restated. A detailed summary of these adjustments is presented under the headline Restatements below.

GROUP INCOME STATEMENT (KSEK)	NOTE	MAY-DEC 2018*	JAN-DEC 2019
<b>Operating income</b>			
Net sales (commercial products)	2	10,935	36,368
Other income (research)	2	4,838	5,878
Other operating income (tax credits)		3,002	5,126
<b>Total income</b>		<b>18,775</b>	<b>47,372</b>
Cost of sales		-677	-1,487
<b>Gross profit</b>		<b>18,098</b>	<b>45,885</b>
Research and development	4	-16,427	-30,450
Sales costs	4	-12,828	-27,014
Administration costs	3,4,5	-7,425	-12,367
Other operating expenses		-1,374	42
<b>Operating profit</b>		<b>-19,956</b>	<b>-23,904</b>
<b>Financial items</b>			
Net interest income and expense	6	-157	-600
<b>Total financial items</b>		<b>-20,113</b>	<b>-24,504</b>
<b>Income after financial items</b>			
Tax		-	-
<b>Net income for the period</b>		<b>-20,113</b>	<b>-24,504</b>

\*restated

<b>GROUP BALANCE SHEET (KSEK)</b>	<b>NOTE</b>	<b>31 DEC 2018*</b>	<b>31 DEC 2019</b>
<b>Assets</b>			
<b>Fixed assets</b>			
Tangible fixed assets			
Equipment, tools, fixtures and fittings	7	302	52
<b>Total fixed assets</b>		<b>302</b>	<b>52</b>
<b>Current assets</b>			
Accounts receivable - trade		9,982	13,668
Other current receivables		4,752	10,158
Prepaid expenses and accrued income	8	498	11,597
<b>Total current receivables</b>		<b>15,232</b>	<b>35,423</b>
<b>Cash and bank balances</b>			
Cash and bank	9	21,263	10,848
<b>Total current assets</b>		<b>36,495</b>	<b>46,272</b>
<b>Total assets</b>		<b>36,797</b>	<b>46,324</b>
<b>Equity and liabilities</b>			
<b>Equity</b>			
Share capital		805	805
Share premium reserve		50,656	51,552
<b>Other capital, translation differences and result for the year</b>			
Other capital, translation differences, result for the year		-21,669	-46,177
<b>Equity attributable to owners</b>		<b>29,792</b>	<b>6,180</b>
<b>Total equity</b>		<b>29,792</b>	<b>6,180</b>
<b>Non current liabilities</b>			
Long term loan	10	0	20,000
<b>Current liabilities</b>			
Accounts payable - trade		1,970	3,456
Other current liabilities		2,070	5,235
Accrued expenses and deferred income	11	2,965	11,453
<b>Total current liabilities</b>		<b>7,005</b>	<b>20,144</b>
<b>Total equity and liabilities</b>		<b>36,797</b>	<b>46,324</b>

\*restated

GROUP CASH FLOW STATEMENT (KSEK)	NOTE	MAY-DEC 2018*	JAN-DEC 2019
<b>Operating activities</b>			
Operating result		-19,956	-23,904
Adjustment for depreciation	12	488	278
Paid interest		-157	-600
		<b>-19,625</b>	<b>-24,226</b>
Increase/decrease in trade receivables		-6,975	-3,686
Increase/decrease in current receivables, accrued income		-6,543	-16,505
Increase/decrease in trade payables		570	1,486
Increase/decrease in current liabilities, deferred income		3,754	11,653
<b>Cash flow from operating activities</b>		<b>-28,819</b>	<b>-31,279</b>
<b>Investing activities</b>			
Acquisition of tangible assets	7	-681	0
Acquisition of subsidiaries		1,627	0
<b>Cash flow from investing activities</b>		<b>946</b>	<b>0</b>
<b>Financing activities</b>			
Long term loan	10	0	20,000
Proceeds from issues of shares and warrants		48,960	856
<b>Cash flow from financing activities</b>		<b>48,960</b>	<b>20,856</b>
<b>Cash flow of the year</b>		<b>21,087</b>	<b>-10,423</b>
Cash at the beginning of the year		0	21,263
Exchange rate differences on cash		176	8
<b>Cash and equivalents at year end</b>	9	<b>21,263</b>	<b>10,848</b>

\*restated

GROUP CHANGES IN EQUITY (KSEK) SEK 000s	SHARE CAPITAL	OTHER PAID-IN CAPITAL	TRANSLATION DIFFERENCES	RETAINED EARNINGS	TOTAL EQUITY
<b>Starting balance 2018-12-31*</b>	805	50,656	518	-22,187	<b>29,792</b>
Result for the period				-24,504	<b>-24,504</b>
Issue of share warrants		856			<b>856</b>
Translation differences			36		<b>36</b>
<b>Ending balance 2019-12-31</b>	<b>805</b>	<b>51,512</b>	<b>554</b>	<b>-46,691</b>	<b>6,180</b>

\*restated

## Restatements

In this section, adjustments to the income statements and balance sheets are presented.

Income statement line items affected: May - Dec 2018

SEK 000s	Reported May - Dec 2018	Restated amount	Restated May - Dec 2018
Net sales (commercial products)	10,935	-	10,935
Other income (research projects)	3,691	1,147	4,838
Other operating income (tax credits)	2,762	240	3,002
<b>Total revenues</b>	<b>17,388</b>	<b>1,387</b>	<b>18,775</b>
Cost of sales	-677	-	-677
R&D expenses	-16,427	-	-16,427
S&M expenses	-12,828	-	-12,828
G&A expenses	-7,425	-	-7,425
Other expenses	-1,113	-261	-1,374
<b>Operating income</b>	<b>-21,082</b>	<b>1,126</b>	<b>-19,956</b>
Financial income/expenses	-157	-	-157
<b>Pre-tax income</b>	<b>-21,239</b>	<b>1,126</b>	<b>-20,113</b>
Tax	-	-	-
<b>Net income</b>	<b>-21,239</b>	<b>1,126</b>	<b>-20,113</b>

Income statement line items affected: 1 Jan - 30 Jun 2019 (H1 2019)

SEK 000s	Reported 1 Jan -30 Jun 2019	Restated amount	Restated 1 Jan -30 Jun 2019
Net sales (commercial products)	25,649	-	25,649
Other income (research projects)	3,726	-1,027	2,699
Other operating income (tax credits)	3,778	-1,479	2,299
<b>Total revenues</b>	<b>33,153</b>	<b>-2,506</b>	<b>30,647</b>
Cost of sales	-1,325	413	-912
R&D expenses	-13,233	-	-13,233
S&M expenses	-12,594	-	-12,594
G&A expenses	-5,351	-	-5,351
Other expenses	-137	-35	-172
<b>Operating income</b>	<b>513</b>	<b>-2,128</b>	<b>-1,615</b>
Financial income/expenses	-	-	-
<b>Pre-tax income</b>	<b>513</b>	<b>-2,128</b>	<b>-1,615</b>
Tax	-	-	-
<b>Net income</b>	<b>513</b>	<b>-2,128</b>	<b>-1,615</b>

Balance sheet line items affected: 31 Dec 2018

SEK 000s	Reported 31 Dec 2018	Restated amount	Restated 31 Dec 2018
Other current receivables	6,339	-1,587	4,752
<b>Total current receivables</b>	<b>38,384</b>	<b>-1,587</b>	<b>36,797</b>
Result for the period	-19,825	1,844	-21,669
<b>Equity attributable to owners</b>	<b>31,626</b>	<b>1,844</b>	<b>29,792</b>
<b>Total equity</b>	<b>31,626</b>	<b>1,844</b>	<b>29,792</b>
Other current liabilities	1,813	257	2,070
<b>Total current liabilities</b>	<b>6,783</b>	<b>257</b>	<b>7,005</b>
<b>Total equity and liability</b>	<b>38,384</b>	<b>-1,587</b>	<b>36,797</b>

GROUP CHANGES IN EQUITY (KSEK) SEK 000s	OTHER SHARE CAPITAL	TRANSLATION PAID-IN CAPITAL	RETAINED DIFFERENCES	TOTAL EARNINGS	TOTAL EQUITY
<b>Reported balance 31 Dec 2018</b>	805	50,656	518	-20,343	<b>31,636</b>
Restatement of 2018				-1,844	<b>-1,844</b>
<b>Restated balance 31 Dec 2018</b>	<b>805</b>	<b>50,656</b>	<b>518</b>	<b>-22,187</b>	<b>29,792</b>

## Parent Company

### Comments on the Parent Company's financial statements

#### Parent Company Financial Statements

The accounts set out below relate to the Group Parent Company Ranplan Group AB which was registered in March 2018 and which is the sole owner of all Ranplan operating companies.

#### Income Statement

The administrative expenses in 2019 relate to members of the Board, the interim CEO and the Chief Strategy Officer as well as other costs required to operate the NASDAQ listed Company.

#### Balance Sheet

The shares in subsidiaries represent the cost of acquiring the activity of Ranplan Holdings Ltd. Group receivables represent advances made to Group subsidiaries to fund their operations.

#### Changes in Equity

The reduction in equity is caused by net losses realised in calendar 2019.

PARENT COMPANY INCOME STATEMENT (KSEK)	NOTE	MAY-DEC 2018	JAN-DEC 2019
<b>Operating income</b>			
Income	101	5,365	
Marketing costs		-318	
Administration	-2,074	-5,105	
<b>Operating result</b>		<b>-1,973</b>	<b>-58</b>
Net interest income and expense	6	331	-600
<b>Loss before taxes</b>		<b>-1,642</b>	<b>-658</b>
<b>Net loss for the year</b>		<b>-1,642</b>	<b>-658</b>
PARENT COMPANY BALANCE SHEET (KSEK)	NOTE	31 DEC 2018	31 DEC 2019
<b>Assets</b>			
<b>Investments</b>			
Financial assets			
Shares in subsidiaries	13	3,396	3,396
<b>Total investments</b>		<b>3,396</b>	<b>3,396</b>
<b>Current assets</b>			
Receivables from Group companies		28,375	67,535
Other receivables and prepayments	8	228	573
Cash and bank balances	9	19,272	1,045
<b>Total current assets</b>		<b>47,875</b>	<b>69,153</b>
<b>Total assets</b>		<b>51,271</b>	<b>72,549</b>
<b>Equity and liabilities</b>			
<b>Restricted equity</b>			
Share capital	14	805	805
<b>Non-restricted equity</b>			
Share premium reserve		50,656	50,696
Retained earnings		896	-746
Loss for the year		-1,642	-658
		49,910	49,292
<b>Total equity</b>		<b>50,714</b>	<b>50,097</b>
<b>Current liabilities</b>			
Accounts payable - trade		56	659
Other payables		0	0
Accrued expenses	11	500	1,793
<b>Total current liabilities</b>		<b>556</b>	<b>2,452</b>
Loan	10	0	20,000
<b>Total liabilities</b>		<b>0</b>	<b>20,000</b>
<b>Total equity and liabilities</b>		<b>51,271</b>	<b>72,549</b>

PARENT COMPANY CASH FLOW ANALYSIS (SEK)	NOTE	MAY-DEC 2018	JAN-DEC 2019
<b>Operating activities</b>			
Operating result		-1,973	-58
Interest received	6	350	0
Interest paid	6	-19	-600
		-1,642	-658
Increase/decrease in current assets		-28,603	-39,505
Increase/decrease in current liabilities		56	1,896
Increase/decrease in other liabilities		500	0
<b>Cash flow from operating activities</b>		<b>-29,689</b>	<b>-38,267</b>
<b>Financing activities</b>			
Proceeds from issue of shares		48,980	0
Proceeds from loan	10	0	20,000
<b>Cash flow from financing activities</b>		<b>48,980</b>	<b>20,000</b>
<b>Cash flow of the year</b>		<b>19,291</b>	<b>-18,267</b>
Brought forward		0	19,272
Foreign exchange differences		-19	40
<b>Cash and equivalents at year end</b>	9	<b>19,272</b>	<b>1,045</b>

PARENT COMPANY CHANGES IN EQUITY KSEK	SHARE CAPITAL	OTHER PAID-IN CAPITAL	OTHER EQUITY	TOTAL EQUITY
<b>Starting balance 2018-12-31</b>	805	50,656	-746	<b>50,715</b>
Result for the period			-658	<b>-658</b>
Issue of share warrants		40		<b>40</b>
<b>Ending balance 2019-12-31</b>	<b>805</b>	<b>50,696</b>	<b>-1,404</b>	<b>50,097</b>

# **Notes, both for the Parent Company and the Group**

## **Note 1 - Accounting and valuation principles**

Ranplan Group AB's (corp id nr 559152-5315) financial statements have been prepared in accordance with the Swedish Annual Accounts Act and the general recommendations of the Swedish Accounting Standards Board, BFNAR 2012:1 Annual reports and consolidated accounts ("K3").

### **Consolidated financial statements**

Ranplan Group AB prepares consolidated financial statements. Information about the Group companies is included in the note regarding fixed financial assets. Subsidiaries are included in the consolidated financial statements from the date on that significant influence is transferred to the Group. They are excluded from the consolidated financial statements from the date on which the significant influence ceases.

Inter-company transactions between Group companies are eliminated in their entirety.

Subsidiaries in other countries prepare their annual accounts in foreign currency. At the time of consolidation, the items in these companies' balance sheets and transactions in their income statements are recalculated on the applicable exchange rate of the balance sheet day and transaction date exchange rate. The exchange rate differences that arise are reported in translations differences in the Group's equity.

### **Foreign currency**

Monetary items in foreign currencies have been translated at the rates of exchange applicable on the balance sheet date. Transactions in foreign currency are translated at the transaction date exchange rate.

### **Revenue**

Revenue has been recognized at the fair value of what has been received or will be received and reported to the extent that it is probable that the economic benefits will be utilized by the company and the revenues can be calculated reliably.

### **Leases**

Ranplan Group AB is lessee and all agreements relate to premises. All leases are reported in accordance with the rules for operational leasing. Leasing fees for operational leases are reported as expenses on a straight-line basis during the lease term, provided that no other systematic method would better reflect the user's economic benefit during the period.

### **Employee benefits**

Short-term benefits in the Group consist of salary, social security contributions, paid holiday, paid sick leave, healthcare and bonuses. Short-term benefits are recognized as an expense and a liability when there is a legal or informal obligation to pay compensation.

## **Income tax**

Current tax is valued at the probable amount according to the tax rates and tax rules applicable at the balance sheet date. Deferred tax assets relating to tax loss carry forwards or other future tax deductions are reported to the extent that the deduction is deductible from surplus in future taxation.

Current tax is recognized in the income statement unless the tax is attributable to an event or transaction recognized directly in equity. Tax effects of items recognized directly in equity are reported against equity.

## **Intangible assets**

The company applies the cost accounting model for internally generated intangible assets. The expenses for this are reported as costs when they arise.

## **Tangible assets**

Tangible assets are reported at cost less depreciation. The acquisition value includes expenses directly attributable to the acquisition of the asset.

Additional expenses relating to assets that are not divided into components are added to the acquisition value if they are expected to give the company future economic benefits, to the extent that the asset's performance increases in relation to the asset's value at the time of acquisition.

**Expenses for ongoing repair and maintenance are reported as costs.**

Capital gains and losses on the sale of a fixed asset are reported as Other operating income and Other operating expenses.

Tangible assets are depreciated systematically over the asset's estimated useful life. When the depreciable amount of the assets is determined, the residual value of the asset will be taken into account.

The following depreciation periods are applied:

Equipment, tools, fixtures and fittings 2 years

## **Impairment of non-financial assets**

When there is an indication that the value of an asset has decreased, an impairment test is performed. If the asset has a recoverable amount that is lower than the net book value, it is written down to the recoverable amount. When assessing impairment, the assets are grouped at the lowest levels where there are separate identifiable cash flows (cash-generating units). For assets that have previously been written down, a review is made on each balance sheet date as to whether reversal should be made.

## **Financial instruments**

Financial instruments recognized in the balance sheet include accounts receivable and other receivables, loan liabilities and trade payables. The instruments are reported in the balance sheet when Ranplan becomes a party to the instrument's contractual terms.

Financial assets are derecognized when the right to receive cash flows from the instrument has expired or transferred and the Group has transferred virtually all risks and benefits associated with ownership.

Financial liabilities are derecognized when liabilities have been cancelled or otherwise terminated.

### **Trade receivables and other receivables**

Receivables are reported as current assets with the exception of expiration dates more than 12 months after the balance sheet date, which are classified as non-current assets. Receivables are taken up to the amount that is expected to be paid after deduction of individually assessed doubtful claims. Receivables that are interest-free or which run at interest rates that differ from the market rate and have a maturity of more than 12 months are reported at a discounted present value and the change in time value is reported as interest income in the income statement.

### **Trade payables**

Trade payables are initially recognized at cost less transaction costs. If the reported amount differs from the amount to be repaid at maturity date, the difference is recognized as interest expense over the term of the loan using the instrument's effective interest rate. As a result, at the maturity date, the reported amount and the amount to be repaid correspond.

### **Cash flow statement**

The cash flow statement has been prepared using the indirect method. The reported cash flow only includes transactions involving inflows and outflows of cash.

### **Parent company accounting and valuation principles**

The same accounting and valuation principles applies in the parent company as the group.

### **Key figures definitions**

#### *Net sales*

Operating income, invoiced expenses, side revenue and revenue adjustments.

#### *Profit/loss after financial items*

Profit after financial income and expenses but before appropriations and taxes.

*Total assets*

Total assets of the company.

*Number of employees*

The average numbers of employees of the period.

*Solidity*

Equity and untaxed reserves (less deferred tax) in relation to total assets.

*Return on assets*

Profit before deductions for interest expenses in relation to total assets.

*Return on equity*

Profit after financial items in relation to equity and untaxed reserves (less deferred tax).

**Note 2 - Geographical distribution  
of net sales and other income**

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Asia	7 766	30 383
North America	3 481	4 979
Europe, Middle East, Africa	4 526	6 884
<b>Total</b>	<b>15 773</b>	<b>42 246</b>

**Note 3 - Auditors' remuneration**

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
<b>PwC (Sweden)</b>		
Audit fee	375	375
Audit related services	655	138
Other services	172	
<b>James Worley and Sons</b>		
Audit fee	125	
Other services	47	
<b>haysmacintyre</b>		
Audit fee		348
<b>Total</b>	<b>1,374</b>	<b>861</b>

**Note 4 - Salaries, other remuneration and social security contributions**

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
<b>Average number of employees</b>		
Women	15	18
Men	46	44
<b>Total</b>	<b>61</b>	<b>62</b>
<b>Salaries, social security expenses, remuneration, bonuses and pensions</b>		
Salaries and remuneration to board and CEO	1,637	3,081
Salaries, remuneration and bonuses to other employees	20,598	28,569
	<b>22,235</b>	<b>31,650</b>
Social security for board, CEO and employees	2,027	3,292
Pensions for board and CEO	120	115
Pensions for other employees	1,013	1,498
<b>Total</b>	<b>25,395</b>	<b>36,555</b>
<b>Board members and CEOs</b>		
Number of board members at year end		
Women	0	1
Men	4	3
<b>Total</b>	<b>4</b>	<b>4</b>
Number of CEOs at year end		
Women	0	0
Men	1	1
<b>Total</b>	<b>1</b>	<b>1</b>

#### Note 5 - Operating lease agreements

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Future minimum lease payments on non-cancellable operating leases		
Within 1 year	726	688
Later than 1 year but within 5 years	136	186
<b>Total</b>	<b>862</b>	<b>874</b>
Expensed leasing fees during the period	754	1,080
This consists of leased premises		

#### Note 6 - Net interest income and expense

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Interest expense	-157	-600
Interest income	0	0
<b>Total</b>	<b>-157</b>	<b>-600</b>

PARENT COMPANY (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Interest expense	-19	-600
Interest income	350	0
<b>Total</b>	<b>331</b>	<b>-600</b>
All interest income of the parent company is intragroup.		

**Note 7 - Equipment, tools, fixtures and fittings**

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
<b>Cost</b>		
Cost brought forward	0	795
Acquisitions	681	0
Through acquisitions of subsidiaries	114	0
<b>Cost carried forward</b>	<b>795</b>	<b>795</b>
<b>Depreciation</b>		
Depreciation brought forward	0	-493
Depreciation acquired and charged in year	-488	-271
Foreign exchange difference	-5	21
Depreciation in the year	-493	-250
<b>Depreciation carried forward</b>	<b>-493</b>	<b>-743</b>
<b>Net book value</b>	<b>302</b>	<b>52</b>

**Note 8 - Prepaid expenses and accrued income**

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Accrued income	454	10,581
Prepayments	44	1,016
<b>Total</b>	<b>498</b>	<b>11,597</b>
PARENT COMPANY (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Other receivables	184	380
Prepayments	44	193
<b>Total</b>	<b>228</b>	<b>573</b>

#### Note 9 - Cash and cash equivalents

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Bank balances	21,263	10,848
Cash and cash equivalents in cash flow analysis	21,263	10,848
PARENT COMPANY (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Bank balances	19,272	1,045
Cash and cash equivalents in cash flow analysis	19,272	1,045

#### Note 10 - Long term loan

The long term loan accrues simple interest at the rate of 1% of the outstanding amount per month, and is repayable in full on 17 July 2024.

#### Note 11 - Accrued expenses and deferred income

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Deferred income		8,843
Accrued salaries	1,553	746
Accrued non income taxes	537	604
Accrued professional fees	500	119
Other	375	1,141
<b>Total</b>	<b>2,965</b>	<b>11,453</b>
PARENT COMPANY (SEK)	MAY-DEC 2018	JAN-DEC 2019
Accrued salaries and directors fees		417
Accrued non income taxes		72
Accrued professional fees	500	60
Other		1,244
<b>Total</b>	<b>500</b>	<b>1,793</b>

**Note 12 -Adjustments for items not included  
in the cash flow analysis**

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Depreciation	488	271
<b>Total</b>	<b>488</b>	<b>271</b>

**Note 13 - Shares in subsidiaries**

GROUP (KSEK)	MAY-DEC 2018	JAN-DEC 2019
Acquisition of Ranplan Holdings Ltd.	3,396	3,396
<b>Cost at year end</b>	<b>3,396</b>	<b>3,396</b>

GROUP	ID	REGISTERED	% OWNED
Ranplan Holdings Ltd	9363975 UK	Cambridge, UK	100%
Ranplan America LLC	802140893 TX	Dallas, USA	100%
Ranplan Wireless Network Design Ltd	5766973 UK	Cambridge, UK	100%
Ranplan China	91370100MA 3CDFB3XT	Jinan, PRC	100%

PARENT COMPANY	Capital share	Voting rights	Book value
Ranplan Holdings Ltd	100%	100%	3 396 KSEK
			<b>3 396 KSEK</b>

**Note 14 – Share Capital**

The share capital consists of 20 115 812 shares with a face value of 0,04 SEK.

**Note 15 – Significant events after the end of the financial year**

In January 2020, the Company received an order worth around USD 400k.

The Board of Directors and CEO hereby assure that this Annual Report for 2019 provides a true and fair overview of the performance of the parent company's and the Group's operations, financial position and earnings, and that it describes the significant risks and factors of uncertainty to which the Parent Company and the companies included in the Group are exposed.

Stockholm 7 May 2020

Jie Zhang, Chairman of the Board

Tomas Isaksson, Board member

Wendy Yang, Board member

Per Lindberg, Board member

Our auditor's report was presented on 7 May 2020

PricewaterhouseCoopers AB

Magnus Lagerberg

Authorised public accountant

# Auditor's report

To the general meeting of the shareholders of Ranplan Group AB, corporate identity number 559152-5315

## Report on the annual accounts and consolidated accounts

### Opinions

We have audited the annual accounts and consolidated accounts of Ranplan Group AB for the year 2019. The annual accounts and consolidated accounts of the company are included on pages 9-38 in this document.

In our opinion, the annual accounts and consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of parent company and the group as of 31 December 2019 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

We therefore recommend that the general meeting of shareholders adopts the income statement and balance sheet for the parent company and the group.

### Basis for Opinions

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

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

### Other Information than the annual accounts and consolidated accounts

This document also contains other information than the annual accounts and consolidated accounts and is found on pages 1-8 and on page 42. The Board of Directors and the Managing Director are responsible for this other information.

Our opinion on the annual accounts and consolidated accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

In connection with our audit of the annual accounts and consolidated accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts and consolidated accounts. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If we, based on the work performed concerning this information, 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.

## Responsibilities of the Board of Directors and the Managing Director

The Board of Directors and the Managing Director are responsible for the preparation of the annual accounts and consolidated accounts and that they give a fair presentation in accordance with the Annual Accounts Act. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts and consolidated accounts, The Board of Directors and the Managing Director are responsible for the assessment of the company's and the group's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the Board of Directors and the Managing Director intend to liquidate the company, to cease operations, or has no realistic alternative but to do so.

### Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts and consolidated accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden 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 these annual accounts and consolidated accounts.

A further description of our responsibility for the audit of the annual accounts and consolidated accounts is available on Revisorsinspektionen's website:  
[www.revisorsinspektionen.se/revisoransvar](http://www.revisorsinspektionen.se/revisoransvar). This description is part of the auditor's report.

## Report on other legal and regulatory requirements

### Opinions

In addition to our audit of the annual accounts and consolidated accounts, we have also audited the administration of the Board of Director's and the Managing Director of Ranplan Group AB for the year 2019 and the proposed appropriations of the company's profit or loss.

We recommend to the general meeting of shareholders that the profit be appropriated in accordance with the proposal in the statutory administration report and that the members of the Board of Director's and the Managing Director be discharged from liability for the financial year.

### Basis for Opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

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

## Responsibilities of the Board of Directors and the Managing Director

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. At the proposal of a dividend, this includes an assessment of whether the dividend is justifiable

considering the requirements which the company's and the group's type of operations, size and risks place on the size of the parent company's and the group' equity, consolidation requirements, liquidity and position in general.

The Board of Directors is responsible for the company's organization and the administration of the company's affairs. This includes among other things continuous assessment of the company's and the group's financial situation and ensuring that the company's organization is designed so that the accounting, management of assets and the company's financial affairs otherwise are controlled in a reassuring manner. The Managing Director shall manage the ongoing administration according to the Board of Directors' guidelines and instructions and among other matters take measures that are necessary to fulfill the company's accounting in accordance with law and handle the management of assets in a reassuring manner.

#### Auditor's responsibility

Our objective concerning the audit of the administration, and thereby our opinion about discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the Managing Director in any material respect:

- has undertaken any action or been guilty of any omission which can give rise to liability to the company, or
- in any other way has acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

Our objective concerning the audit of the proposed appropriations of the company's profit or loss, and thereby our opinion about this, is to assess with reasonable degree of assurance whether the proposal is in accordance with the Companies Act.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability to the company, or that the proposed appropriations of the company's profit or loss are not in accordance with the Companies Act.

A further description of our responsibility for the audit of the administration is available on Revisorsinspektionen's website: [www.revisorsinspektionen.se/revisoransvar](http://www.revisorsinspektionen.se/revisoransvar). This description is part of the auditor's report.

Stockholm 7 May 2020

PricewaterhouseCoopers AB

Magnus Lagerberg  
Authorized Public Accountant

Other information

### **Proposed allocation of Ranplan's profits**

The Board of Directors recommend that no dividend be paid for the full year 2019.

### **2020 Annual General Meeting**

The Annual General Meeting will be held on 15 June 2020 in Stockholm, Sweden.

### **Certified Adviser**

FNCA Sweden AB

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### **Questions regarding this report are answered by:**

CEO (interim) Per Lindberg

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### **Financial Calendar**

Interim report H1 2020 . 20 August 2020

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