

Annual Statement 2022



RANPLAN GROUP AB

Annual Statement 2022



Perfecting Wireless Networks



Summary

Second half of 2022 (second half of 2021)

- ◆ Total income amounted to SEK 15.1 million (14.9 million)¹
- ◆ Net sales amounted to SEK 9.7 million (7.0 million)
- ◆ Operating income amounted to SEK -12.6 million (-12.3 million)
- ◆ Net income amounted to SEK -13.0 million (-13.3 million)
- ◆ Earnings per share amounted to SEK -0.43 (-0.49)
- ◆ Cash at the end of the period amounted to SEK 5.1 million (17.4 million)

Full year of 2022 (Full year of 2021)

- ◆ Total income amounted to SEK 29.0 million (32.3 million)¹
- ◆ Net sales amounted to SEK 17.7 million (15.3 million)
- ◆ Operating income amounted to SEK -26.4 million (-21.9 million)
- ◆ Net income amounted to SEK -26.7 million (-23.9 million)
- ◆ Earnings per share amounted to SEK -0.88 (-0.93)
- ◆ Cash at the end of the period amounted to SEK 5.1 million (17.4 million)
- ◆ The Board proposes that no dividend be paid for 2022 (no dividend)
- ◆ At the end of 2022, SEK 38.7 million was undrawn from the credit line.

1 Total income comprises the sum of net sales (related to commercial products and services), other income (associated with research projects) and other operating income (derived mainly from R&D tax credits).

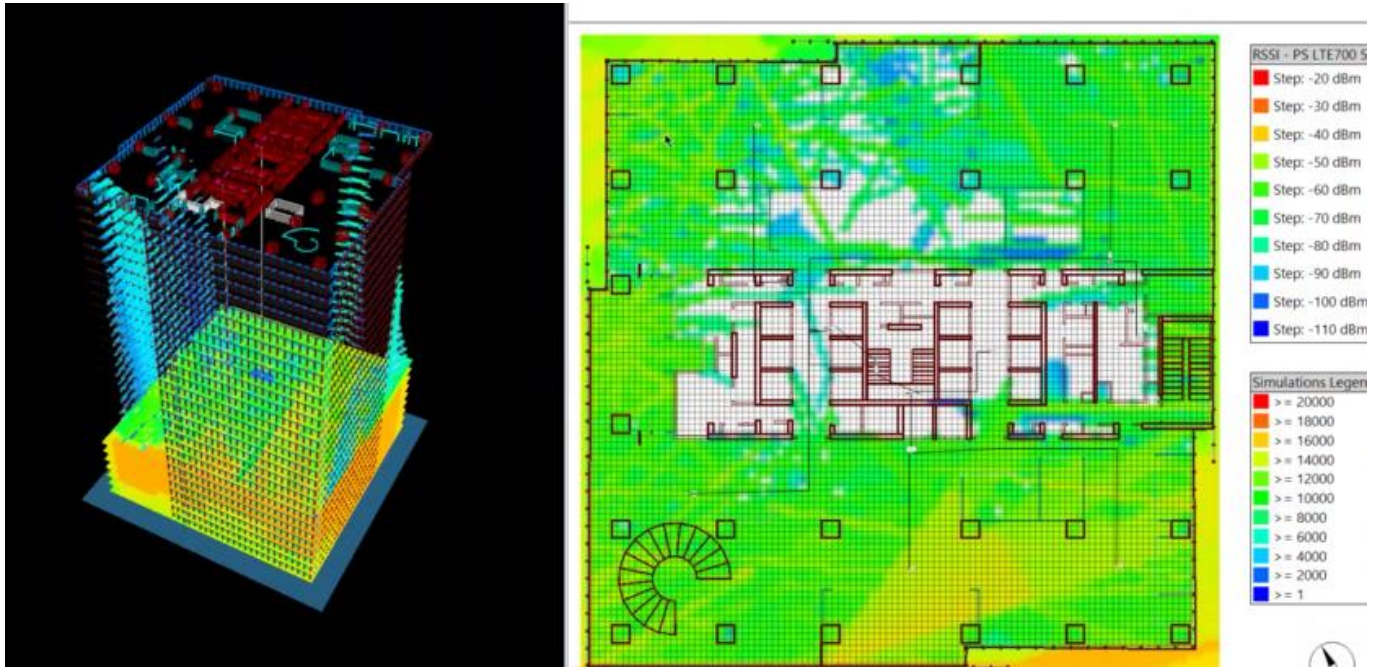
Significant events in 2022

- On 23 February 2022, Ranplan Wireless announced that it has been selected by CommScope Inc to upgrade the vast majority of its existing suite of Ranplan Professional licenses, acquire Ranplan Tablet licenses and obtain Ranplan training for a group of engineers.
- On 10 March 2022, Ranplan announced that it pauses business activities in Russia until further notice.
- On 16 May 2022, at the AGM in Stockholm, it was resolved that Tomas Isaksson be re-elected as chairman, and that Jie Zhang, Wendy Yang and Jon Ullmark be re-elected as ordinary members of the board.
- At the end of June 2022, Ranplan Wireless launched the latest version (6.6) of its flagship product PRO.

Significant events after the end of 2022

- On 14 February 2023, Ranplan Wireless announced a reseller partnership with solution provider for radio communications and spectrum management, LS telcom, headquartered in Lichtenau, Baden, Germany.
- On 16 February 2023, Ranplan Wireless announced a preview of a feature for ultra-reliable, low-latency applications that will be presented at the Mobile World Congress (MWC) in Barcelona (27 Feb – 2 March).

Ranplan Professional is ideally suited to accurately model radio propagation on either side of the ceilings and walls of buildings



Ranplan Professional addresses both the indoor and the outdoor environment using one single tool, a unified interface and logic to analysing radio propagation.

Words from the CEO

Despite continued headwinds from external factors, net sales drawn from commercial products and services grew by nearly 40% year-on-year in the second half of 2022. The healthy rebound helped mitigate reduced contributions from research-related activities. Thanks to solid cost control, losses from operations were more contained than in the first six months of the year and noticeably lower than in the year-earlier period after screening out the effects of certain one-time items and material foreign exchange movements.

The pipeline of research projects, notably, was significantly rebuilt following a tepid patch in 2021. Income from this source may well offset the negative impact of the UK Autumn Statement 2022, see page 15.

We ended 2022 with a cash holding of SEK 5.1 million which together with other net current assets and unutilised funds from the credit line provided us with more than SEK 50 million in payment capacity – affording us sufficient liquidity, barring any disruptive events, to fund operations through calendar 2023.

Operationally, considerable progress was registered in 2022. Our customer base in Japan was expanded to nine (9) enterprise customers (many of whom are well-known household names) which have chosen to employ Ranplan's suite of tools for the perfection and realisation of advanced industrial applications – illustrating most conclusively domains where 5G catapults the capabilities of previous generations of cellular and Wi-Fi. After an extensive period of work, we successfully completed the final phase of a cloud-native project through which our software elements are integrated into a platform of a leading customer.

Though hampered by pandemic-related anxiety throughout the year, our commercial engagements in mainland China remain robust. We are currently involved in several important projects at the absolute frontier of industry development in close collaboration with a couple of the top mobile network operators/neutral hosts. Automation of processes, design efficiency and performance assurance (audit functions/centralised evaluation systems) constitute concrete customer benefits that we make happen.

In North America, we captured the attention of one of the world's top three manufacturers of mobile network equipment, resulting in a breakthrough accord which we hope can generate follow-on orders. In the UK, we extended commercial relationships with a series of customers and secured a number of new research projects. In Germany, we transformed a lease into a perpetual license for one of the world's two largest vendors of radio network equipment. In Italy, we received our first order from a government client. On the reseller front, we recently formalised an agreement with LS telcom AG (Public Company) for the distribution of our suite of software tools to the German-speaking parts of Europe on an exclusive basis.

The quality of our products, last but not least, continues to win accolades from customers worldwide. We see steady improvements on this vital point as the direct result of concerted internal efforts from our dedicated teams within inter alia product management, software development, testing and pre-sales and support to comprehensively and systematically address any critical difficulties that users may experience. Productivity, the ease and speed with which engineers can carry out projects, is another area where we indeed excel. A few field trials conducted in 2022 suggest up to 2x efficiency gains vis-à-vis an incumbent.

Private Wireless, whilst evolving more slowly than anticipated in 2022, remains our focal point. This is a segment where our expertise and experience come to the fore. It is indoor-centric in nature; it requires

absolute accuracy of prediction and reliability of connectivity; it necessitates precise design and utmost attention to the minute control of negative interference between the private and the public network domains; it triggers a desire to leverage our tools – specifically and uniquely coded to handle the indoor and the outdoor seamlessly using the very same algorithms (logic) within a single, unified user interface. Demonstrable traction in Japan, known for its devotion to automation and proficiency in manufacturing, leads the way. The Smart Factory of the future, paving the way for Industry 4.0, is exhibited on p. 12-13.

Momentum is building in this space, aided by the provision of swathes of dedicated frequency resources, continual enhancements to existing 5G standards (revolving around latency, reliability, and security), and periodic releases of entirely new ranges of networking gear, devices and sensors (IoT). Its premium value fuels immense interest from an eclectic group of players, mobile operators, equipment vendors, neutral hosts, web-scale giants, system integrators, major enterprises as well as local and national authorities. Our software, specifically built to handle the most advanced of use cases, fits very well into this picture.

Perspectives 2023

In 2023, we aspire to further bolster our attractiveness, competitiveness, and innovativeness across a whole range of offerings. We expect to benefit from the lifting of pandemic-restrictions in mainland China, setting the stage for a return to face-to-face meetings, project completions and investment recoveries. We envisage broader recognition of the advantages of using our products and services for the refinement and perfection of industrial applications with the success in Japan spreading to other manufacturing centres of excellence worldwide. We project that income from Research Projects will expand significantly in 2023 (from a low base of comparison in 2022), offsetting an expected reduction of income from tax credits from 2024. No cash effect due to this factor is predicted in calendar 2023, but, if the state of current matters stands, then – *ceteris paribus* (all else equal) - we expect a negative effect of c. GBP 240k (c. SEK 3 million) in calendar 2024 and c. GBP 320k (c. SEK 4 million) in 2025 (in comparison with 2023).

Finally, I want to sincerely thank all customers, partners, shareholders and the whole spectre of our workforce. The storms of the last three years have been weathered in no small part because of the aptitude and fortitude that have been displayed. Such traits instil confidence for the years ahead. Recent success in Private Wireless lends credence to our value provision. To speed the pace of commercialisation, we will strive to forge relationships which are complementary, incremental and supportive to our existing resources, and broaden and deepen our marketing and sales activities. As an avid supporter of open file formats and application protocol interfaces in a multi-vendor setting, Ranplan has the capacity to make advanced architectures, platforms and systems more efficient, functional, intelligent, reliable and robust.



Per Lindberg, CEO



Summary of the period

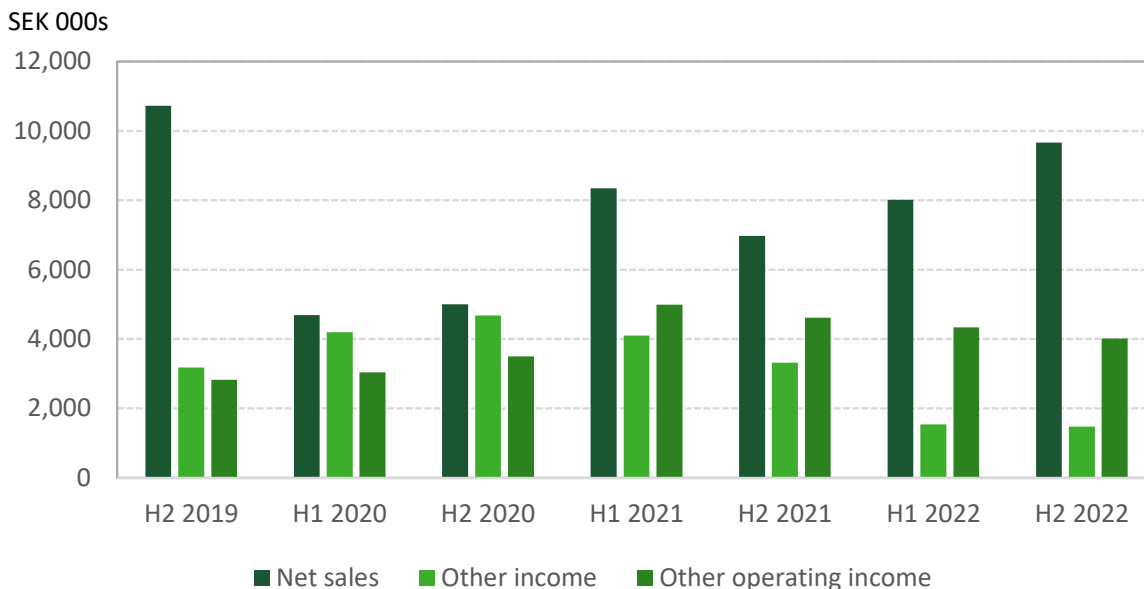
Net sales produced nearly 40% year-on-year growth in the second half of 2022 (circa 20% at constant FX) and slightly more than 20% in comparison with the first six months of last year (circa 15% at constant FX). Whilst business activities were severely hampered by exceptionally rigorous covid-restrictions in China, the demand picture – propelled by spiralling interest in private wireless - a segment ideally suited to Ranplan’s suit of software tools, experience and expertise – shows no signs of abating. Operating income and cash flow from operations – both of which were negatively affected by foreign exchange movements – held largely stable, a reflection of the extraction of efficiency gains across the global operations at large.

Financials

Income statement

Total income in the second half of 2022 (the period 1 July – 31 Dec 2022) amounted to SEK 15.1 million, corresponding to an increase of 2% and 9% on a year-on-year and half-year sequential basis, respectively. Net sales, associated with commercial products and services, rose by 39% and 21% using the same frames of comparison, respectively. For the full year of 2022, net sales expanded by 15% while other income related to research projects, broadly as anticipated, contracted by 59%. A significant rebound of the latter is envisaged in 2023 on the back of a replenished backlog of undertakings. Other operating income, drawn from R&D tax credits, declined by 13% in 2022 versus 2021. As a result of proposed changes to UK legislation, as set out in the Autumn Statement, a further decline of tax credits is likely in 2023 and 2024.

Net sales, other income and other operating income by half-year period



Total income by half- and full-year period

SEK 000s	H1 2021	H2 2021	H1 2022	H2 2022	FY 2021	FY 2022
Net sales	8,345	6,970	8,007	9,661	15,315	17,668
Other income	4,097	3,314	1,543	1,470	7,411	3,013
Other operating income	4,993	4,619	4,334	4,010	9,612	8,344
Total Income	17,435	14,903	13,883	15,141	32,338	29,024

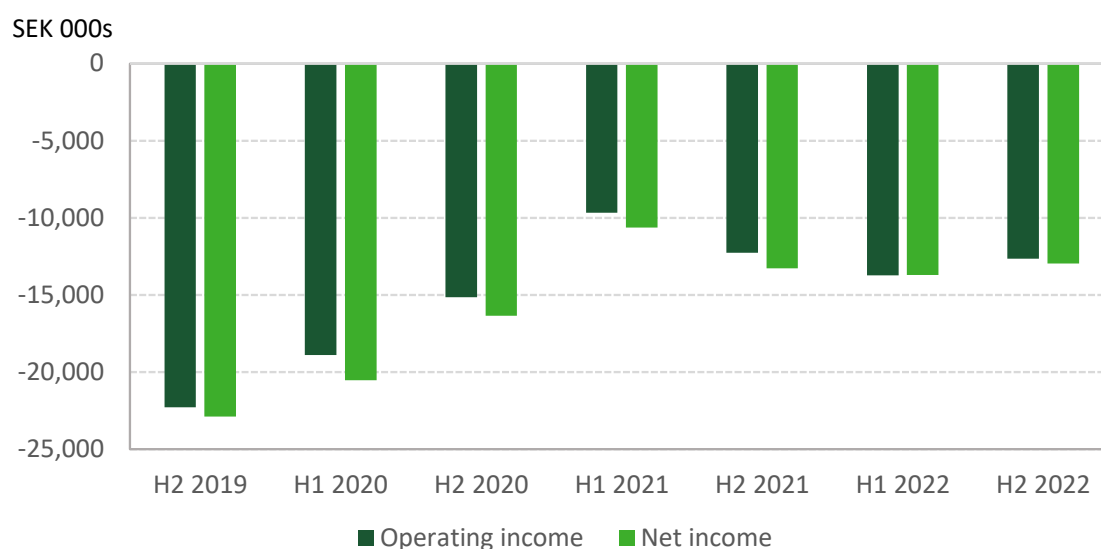
Note: Total income is defined as the sum of net sales, other income and other operating income. Net sales relate to commercial products and services, Other income to research projects and Other operating income mainly to R&D tax credits in the UK.

Total income mix by half- and full-year period

SEK 000s	H1 2021	H2 2021	H1 2022	H2 2022	FY 2021	FY 2022
Net sales	48%	47%	58%	64%	47%	61%
Other income	23%	22%	11%	10%	23%	10%
Other operating income	29%	31%	31%	26%	30%	29%
Total Income	100%	100%	100%	100%	100%	100%

Operating income in the second half of 2022 amounted to -SEK 12.8 million, essentially on a par with the level of -SEK 12.3 million in the year-ago period but hence around SEK 1 million smaller a loss than in the first six months. Net income – a loss of SEK 13.1 million - improved slightly in comparison with H2 2021 and H1 2022. Investors may wish to note that depreciation of the SEK has magnified losses expressed in the reported currency. Assuming an average FX of 10.3 to the USD (8.7 in H2 2022), one infers that net income denominated in the American currency have fallen from around USD 1.5 million in H2 2021 to USD 1.3 million in H2 2022.

Operating and net income by half-year period



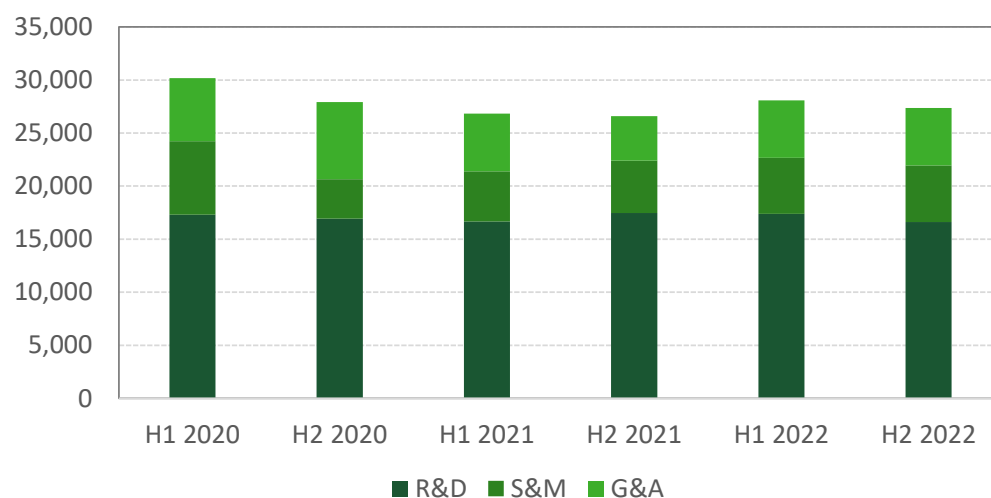
Operating and net income by half- and full-year period

SEK 000s	H1 2021	H2 2021	H1 2022	H2 2022	FY 2021	FY 2022
Operating income	-9,671	-12,258	-13,737	-12,646	-21,929	-26,383
Net income	-10,634	-13,288	-13,720	-12,970	-23,922	-26,690

Operating expenses attributable to research and development (“R&D”), sales and marketing (“S&M”) as well as general and administration (“G&A”) amounted to SEK 27.4 million, 3% lower than in the first half of 2022 and 3% higher than in the second half of 2021. It is worth noting that expenses related to marketing and sales rose by 8% on a year-on-year basis whereas those associated with general and administrative expenses leapt by almost a third from a depressed level of comparison for the same period (affected by a cost reversal). R&D expenditures were trimmed by 4% on the level of H1 2022 and by 6% in comparison with H2 2021. Filtering out the effects of foreign exchange fluctuations, the underlying decline year-on-year exceeds the 10% mark.

Operating expenses by component* by half-year period

(SEK 000s)



Operating expenses by half- and full-year period

SEK 000s	H1 2021	H2 2021	H1 2022	H2 2022	FY 2021	FY 2022
R&D	16,668	17,471	17,395	16,617	34,139	34,866
S&M	4,725	4,934	5,269	5,321	9,659	10,203
G&A	5,432	4,195	5,409	5,417	9,627	9,604
OPEX	26,825	26,600	28,073	27,355	53,425	54,673

*Operating expenses ("OPEX") consists of expenses associated with research and development ("R&D"), sales and marketing ("S&M") and general functions and administration ("G&A").

Gross profit, here defined as the difference between total income and cost of sales, was essentially unchanged in comparison with second half of 2021, but increased by 7% versus the first half of 2022. The gross margin, calculated as the ratio of gross profit and total income, diminished modestly (as an effect of a higher proportion of resold maps) but remains stellar above the 95% mark – a direct consequence of the software licensing model with no inclusion of any third-party commercial components. On this note, it should be stressed that in the event of expansion into the provision of network design services, cost of sales would rise considerably faster than total income, imposing downward pressure on the gross margin even if operating income in absolute terms would improve. Costs associated with *Other income* (research projects) and *Other operating income* (R&D tax credits) are captured almost exclusively by operating expenses in our accounts.

Gross profit in absolute terms and relative to R&D expenses

SEK 000s	H1 2021	H2 2021	H1 2022	H2 2022	FY 2021	FY 2022
Gross profit	17,322	14,801	13,616	14,608	32,123	28,224
R&D expenses	16,668	17,471	17,395	16,617	34,139	34,012
<i>Gross profit/R&D expenses</i>	104%	85%	78%	88%	94%	83%

Operating cash flow (OpCF) in the second half amounted to -SEK 9.9 million versus -SEK 8.7 million and -SEK 13.5 million in the second half of 2021 and the first half of 2022, respectively. For the full year 2022, operating cash flow improved to -SEK 23.4 million from -SEK 26.8 million in 2021. Solid cash collection from receivables contributed to reducing the ratio of operating cash flow to operating income (EBIT) to 89% (122% in 2021).

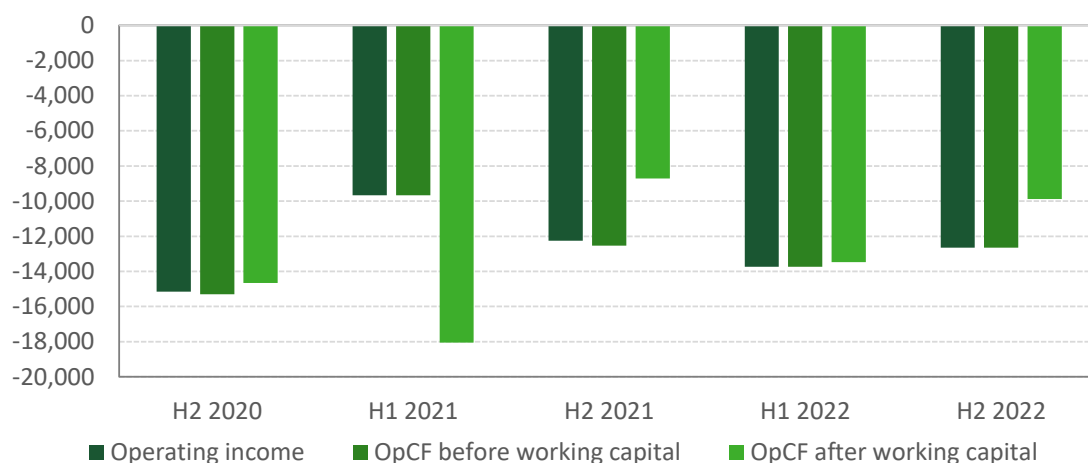
Summary of results by half- and full-year period

SEK 000s	H1 2021	H2 2021	H1 2022	H2 2022	FY 2021	FY 2022
Gross profit	17,322	14,801	13,616	14,608	32,123	28,224
Gross margin	99%	99%	98%	96%	99%	97%
OPEX	26,825	26,600	28,073	27,355	53,425	55,428
EBIT	-9,671	-12,258	-13,737	-12,646	-21,929	-26,383
OpCF	-18,048	-8,704	-13,476	-9,877	-26,752	-23,353
OpCF/EBIT	187%	71%	98%	78%	122%	89%

Gross profit comprises the difference between total income and cost of sales. Gross margin is the ratio of gross profits and total income.

Operating profit, cash flow ("OpCF") before and after working capital by half-year period

(SEK 000s)

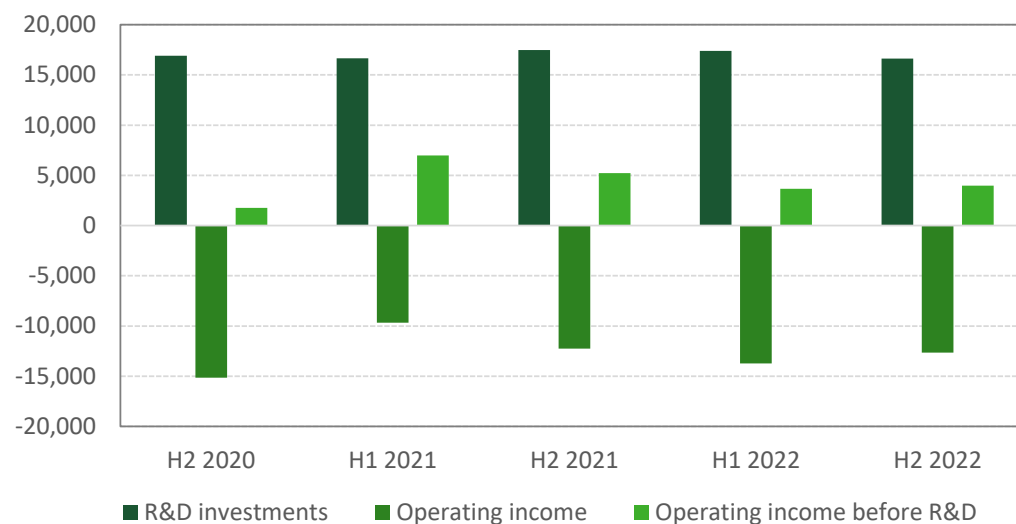


Accounting for R&D expenses – an alternative assessment

In judging the income statement, readers may wish to observe that the Company absorbs all R&D expenses directly (no capitalisation or amortisation takes place). As an alternative assessment of financial performance, investors may note that in the calendar year 2022, the Company incurred a surplus SEK 7.6 million at the operating level before R&D expenses, equivalent to 26% of total income – these figures can be compared with an operating loss on a reporting basis of SEK 26.4 million corresponding to -91% of total income after absorbing 100% of all R&D expenses (actual consumption) in the income statement.

R&D and operating income after and before such investments by half-year period

(SEK 000s)

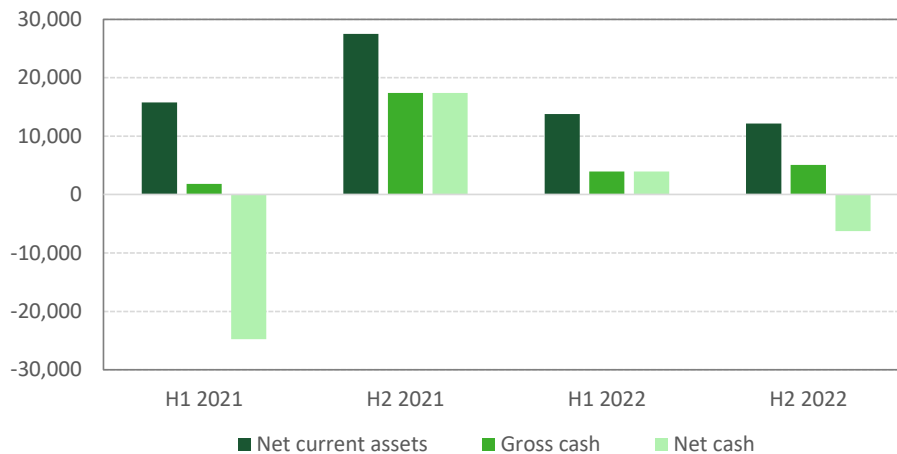


Balance sheet

At the end of 2022, cash and net debt amounted to SEK 5.1 million and SEK 6.3 million, respectively. Net current assets, measuring the difference between current assets, including cash, and current liabilities, amounted to SEK 12.2 million. Close to SEK 39 million of the credit line had yet to be drawn, leaving the company with an estimated net liquidity of around SEK 51 million at the beginning of 2023. This figure corresponds to more than 200% of reported net operating cash consumption in 2022 of SEK 23.4 million.

Net current assets, gross and net cash at the end of half-year period

(SEK 000s)



Net current assets, gross and net cash and shareholders' equity

SEK 000s	30 JUN 2021	31 DEC 2021	30 JUN 2022	30 DEC 2022
Net current assets	15,763	27,519	13,798	12,152
Gross cash	1,831	17,409	3,949	5,072
Net cash	-24,746	17,409	3,949	-6,258
Shareholders' equity	-10,814	27,518	13,798	806
o/w fixed assets	0	0	0	0
o/w intangible assets	0	0	0	0

Shareholders' equity amounted SEK 0.8 million at the end of December 2022, down from SEK 13.8 million at the end of June 2022 and SEK 27.5 million at the end of December 2021. It is important to observe that the balance sheet contains no intangible assets, neither capitalised R&D or patents, or acquisition-related goodwill). Since the beginning of 2017, the Company has spent SEK 174 million on research and development and reported net sales (from commercial products and services) in excess of SEK 75 million. Losses carried forward, which conceivably could reduce further tax liabilities, are not booked as an asset.

Operations

A less than ideal external environment in 2022 had an adverse impact on operations. In March 2022, the Company decided to pause business activities in Russia until further notice. Amid periodic local outbreaks of covid in China, travel restrictions caused serious disruptions to ongoing projects, which, in the main, led to cancellations of meetings and significant delays to acceptance and delivery procedures. Surging cost of electricity in Europe had a dampening effect on mobile operators' investment plans. The company's product portfolio, however, continued to develop favourably with evidence of efficiency gains, positive feedback from leading customers, not least within the fields of Private Wireless and Public Safety, areas where our leadership in HetNet design and interference analysis is a point of differentiation.

Value Proposition

The software we provide have been developed with the view that a unified tool, capable of mastering the indoor and the outdoor environment seamlessly, in harmony and in unison, is what the industry needs. This approach is increasingly often embraced by protagonists of **Private Wireless Networks** which almost invariably must thoroughly address and assess the exacting requirements imposed upon them.

This segment (aka as **Dedicated Networks**) – closely associated with industrial applications and machine-to-machine communication – is where 5G has the capacity to engender the 4th industrial revolution. A proviso, of course, is that exacting requirements related to latency, reliability and security be met. The Private Wireless bandwagon – at the epicentre of virtually all protagonists amongst telecom operators, equipment vendors, neutral hosts, design houses - is bound to gather steam in 2023 and beyond.

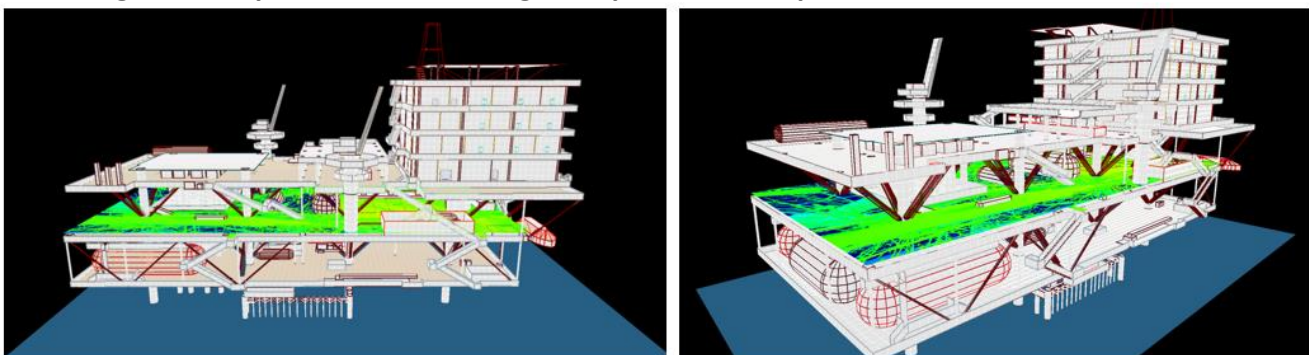
Our tools offer accurate and objective assessments of radio networks using a unified indoor/outdoor approach in close proximity of buildings (where advanced wireless technology matters the most). We are vendor-neutral and technology-agnostic. We embrace open file formats and support freedom of choice.

By taking advantage of the capabilities of these tools, customers can amongst others (i) audit key performance indicators (KPIs) that matter for the perfection of industry specific processes, cost budgets or *green* credentials before any network equipment is installed; (ii) evaluate network products, their preferred locations and topologies, before any equipment is even considered, let alone purchased; (iii) control any negative interference between private and public networks – a prerequisite for the sharing of spectrum in most parts of the world (and hence a prerequisite for making private wireless a reality).

At this juncture, we wish to stress that our tools are ideally placed to help operators and owners of mobile networks to **contain energy costs** (which have been surging in the aftermath of the escalation in Ukraine). Nowhere is this more crucial than within the radio access network, which typically represents 70-80% of operators' electricity consumption in dense urban areas (where the risks of shortages are the greatest).

Our suite of tools is also increasingly often used as a means to create **computer replicas** (aka Digital Twins) of the real world. These maps, whether originated or enhanced by our software, adds to the value proposition (beyond analysing and simulating the radio propagation characteristics). Feedback from customer suggests that significant efficiency gains can be achieved by using our tools in lieu of others.

Modelling wireless performance of a digital replica of an oil platform



Adhering to a principle of *'freedom of choice'*, *'mix-and-match'*, *'objectivity and trust'* and removal of *'vendor lock-ins'*, we **embrace open interfaces** (REST APIs, Data Formats etc); we are **neither controlled, nor owned** by any manufacturer of telecom equipment; and, we **support all technologies** (cellular, WiFi) as well as all configurations (small cells, active, passive DAS, centralised and distributed topologies etc).

Case Study: Smart Factory

This section is based on a comprehensive Case Study conducted in close partnership with the ultimate customer **Sumitomo Shoji Machinex** and **Marubun, Ranplan Wireless’** reseller in Japan. For more details, please see *Resources* on our web-site.

Overview

Since the Japanese government launched the Connected Industries strategy to support smart factories, our local strategic partner, **Marubun** have received requests from large manufacturing companies to aid the development of wireless connectivity within their factories. To support the connectivity requirements of technologies such as IoT sensors, machine-to-machine (M2M) communications, AI robots and automated guided vehicles (AGV), a Private Wireless Network is needed to deliver the dedicated connectivity for low latency, reliability and security. Marubun supplied **Sumitomo Shoji Machinex** with the **Ranplan Professional** network planning software to design and optimise a 5G Private Wireless Network across a 20,000-square-meter smart factory for steel and non-ferrous metal manufacturing conducted by the **Sumitomo Corporation**.

Challenge

A reliable wireless network connection is required to maintain the seamless production process, however a factory environment creates some RF challenges. A typical indoor factory is filled with machinery made from metal and steel which is not friendly to wireless communications. The solid materials reflect or diffract wireless signals making it challenging to plan a network that will bypass these obstacles. The equipment installed in factories often comes with its own wireless connection or Wi-Fi access point and when you install tens or hundreds of machines inside a building, it creates a very densely populated wireless environment which can cause interference and put a strain on the network. Ultimately this can lead to poor network performance and costly production delays. Each Smart Factory is laid out differently and with so many technologies available, it can be difficult to determine which components and configurations are best suited for the unique environment.

Environment, external and internal to the factory building



The purpose of this network design is to correctly configure and prove that a dedicated 5G private network can deliver consistent wireless service to all the connected factory machinery for seamless operations.

Source: www.ranplanwireless.com/gb/resources/smart-factory-japan/download/

Solution

To overcome the challenges of machinery and steel materials affecting the signal propagation, **Sumitomo Shoji Machinex**, the company responsible for the network design, used **Ranplan Professional** to create a digital 3D model of the environment using information from a site survey. The efficient modelling capability enabled them to model all aspects of the smart factory, including the machinery. All structures and machinery were assigned material information from **Ranplan's** building materials library to accurately depict the impact on RF propagation, noting that physical objects naturally reflect or diffract wireless signals.

Results

Sumitomo Shoji Machinex calibrated the accuracy of the simulations by importing onsite measurement data. The simulations were performed under a variety of conditions such as opened and closed factory shutters to see how this would impact the signal propagation. This helped to investigate the cause of signal loss in certain areas of the building and ascertain the appropriate tilt angle of the antennas to maximise coverage performance and minimise signal leakage.

Model of the factory building in 3D (left) and illustration of the strength of the radio propagation (right)

3D MODEL OF FACTORY BUILDING

The 3D RF propagation simulations of the 20,000 square metre Smart Factory provided significant advantages when determining the number of base stations required, the preferred locations and the appropriate antenna tilt, with proper attention paid to vital restrictions on where the base stations could be installed.

Red	-40 dBm <= SS RSRP < 0 dBm
Orange	-50 dBm <= SS RSRP < -40 dBm
Yellow	-60 dBm <= SS RSRP < -50 dBm
Light Green	-70 dBm <= SS RSRP < -60 dBm
Green	-80 dBm <= SS RSRP < -70 dBm
Dark Green	-90 dBm <= SS RSRP < -80 dBm
Blue-Green	-100 dBm <= SS RSRP < -90 dBm
Blue	-110 dBm <= SS RSRP < -100 dBm
Dark Blue	-120 dBm <= SS RSRP < -110 dBm
Black	-200 dBm <= SS RSRP < -120 dBm

"Ranplan Professional provides our customers with an all-in-one independent network planning platform which is leading the way companies design and maintain their local 5G networks. The ability to precisely model the unique environments and optimise the network designs with the use of 3D RF simulations and productivity-enhancing automation tools has delivered and will continue to deliver substantial time and cost savings for our customers."

- Shun Miyamoto, Information and Communications Team, Marubun

Source: www.ranplanwireless.com/gb/resources/smart-factory-japan/download/
 RSRP (Reference Signals Received Power) is a measure of signal level and quality for wireless networks.

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. After shifting to a half year reporting cycle in September 2019, the Company does not break down the results by quarter (consecutive 3 months periods). It is the Board of Directors' view that the Group's financial performance is best judged on a rolling twelve-month rather than an isolated interim reporting basis.

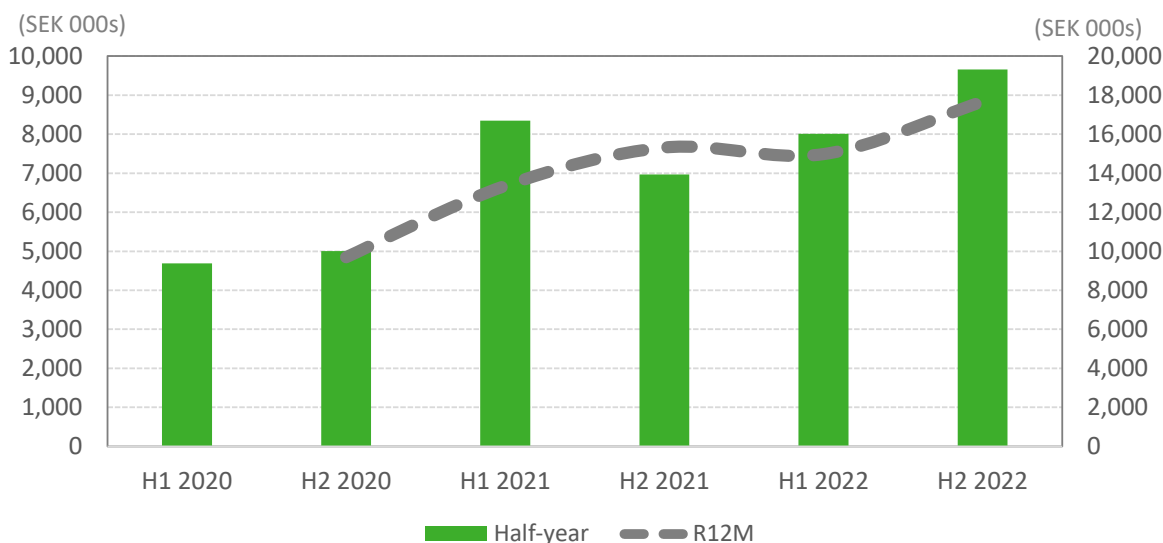
For the sake of clarity, the term **Total Income**, comprising Net sales (from commercial products and services), other income (from research projects) and other operating income (from R&D tax credits, is used to reflect all sources of income (and by extension receipt or expected future receipt of cash). Gross profit is measured as the absolute difference between Total Income and Cost of sales with the gross margin calculated as the ratio between gross profit and Total Income. Operating expenses ("OPEX") consists of expenditures associated with *Research and Development* (abbreviated as "R&D"), *Sales and Marketing* ("S&M" or "Sales costs") and *General and Administration* ("G&A" or "Administration costs").

Comments on the results

Income Statement

In the second half of 2022, total income amounted to SEK 15.1 million, 2% higher than in corresponding period of 2021 and 9% higher than in the first six months of 2022. The increase is solely attributed to **net sales** (commercial products and services) which, against a tepid base of comparison, rose by 39% (year-on-year) to SEK 9.7 million. **Other income** (drawn from research projects), in line with projections, more than halved to SEK 1.5 million (on a par with the level in H1 2022). Its decline is a consequence of a dearth of new orders in 2021, a situation that reversed in 2022 – paving the way for a considerable rebound in this source of income in 2023. **Other operating income** (R&D tax credits) reached SEK 4.0 million, down 13% and 7% from the levels twelve and six months earlier, respectively. As an effect of the UK Autumn Statement 2022, further reductions of this line item are anticipated in 2023 and 2024, see further below.

Net sales by half-year period and rolling (trailing) twelve months (R12M)



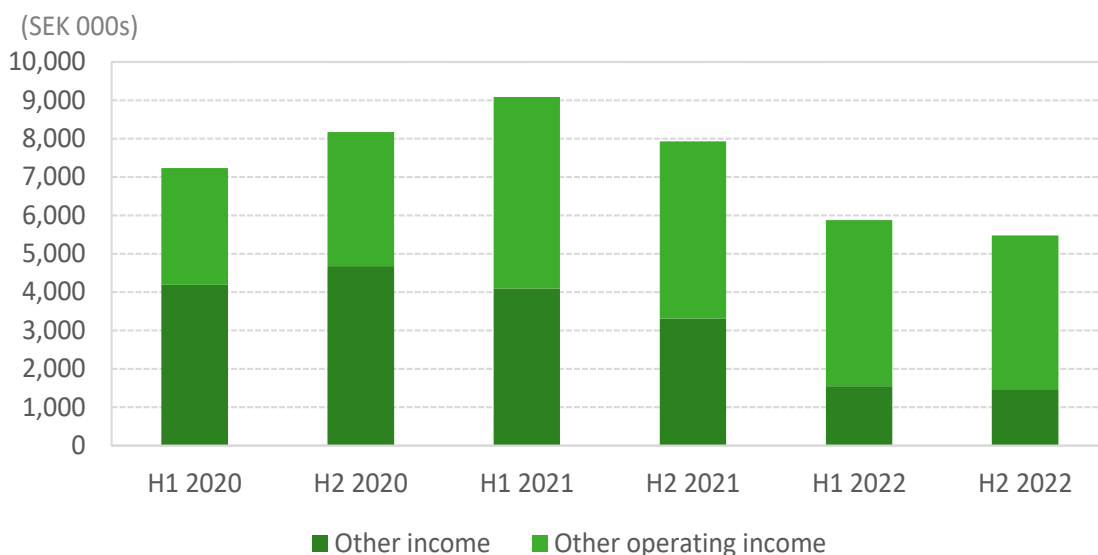
UK Autumn Statement

In conjunction with the Autumn Statement in November 2022, the UK Government declared its intention to introduce, effective 1 April 2023, more onerous criteria – especially in relation to the degree to which small enterprises will receive financial aid for qualified R&D. If the proposals stand, and no other means of support are provided, then Ranplan Wireless, the wholly owned UK subsidiary of Ranplan Group AB, will - all else equal – receive an estimated GBP 240k (c. SEK 3 million) and GBP 320k (c. SEK 4 million) less in tax credits in 2024 and 2025, respectively. At the end of 2022, Ranplan carried tax credit receivables valued at around SEK 8.4 million – attributable to research and development activities deemed to be eligible in calendar 2022 - on its balance sheet. Collection of these receivables is expected in mid-2023.

R&D tax credits will be reformed to ensure public money is spent effectively and best supports innovation.
UK Autumn Statement 2022, 17 November 2022

Thanks to a considerably bolstered backlog of research projects, total income from R&D related activities – the sum of Other income and Other operating income - is likely to demonstrate resilience in 2023.

Income from R&D related activities by half-year period*



*Other income relates to research projects and Other operating income to R&D tax credits

Gross profits, defined as the difference between Total Income and costs of sales, of SEK 14.6 million held steady on a year-on-year basis and grew by 7% on the first half of the year. The resultant gross margin (gross profit divided by Total Income) of 96% illustrates the operating leverage of our software licensing model (although a higher proportion of resold maps explains the slight diminution from 99% a year ago). (Had cost of sales been attributed solely to net sales, then the gross margin would have reached 94.5%).

Costs of operations

Research and development expenditures amounted to SEK 16.6 million, down by 5% year-on-year and by 4% versus the first six months of the year. Had the SEK not depreciated markedly vis-à-vis the GBP in 2022, then the reductions would have been much larger. As in the past, all R&D is expensed as it occurs (no capitalisation takes place, making the balance sheet free of any intangible assets, goodwill or others).

Expenses related to sales and marketing (“Sales costs”) at SEK 5.1 million, for a rise of 5% year-on-year (and largely unchanged from the first six months), remains subdued. Costs associated with central functions and administration of SEK 5.4 million is largely invariant (after adjustment for one-time effects). **Other operating income/expenses**, associated with VAT charges and gains/losses on foreign exchange movement, of SEK 0.1 million had no meaningful effect on the operating or net income in the second half. In the first six months, though, it contributed markedly to the results due to depreciation of the SEK.

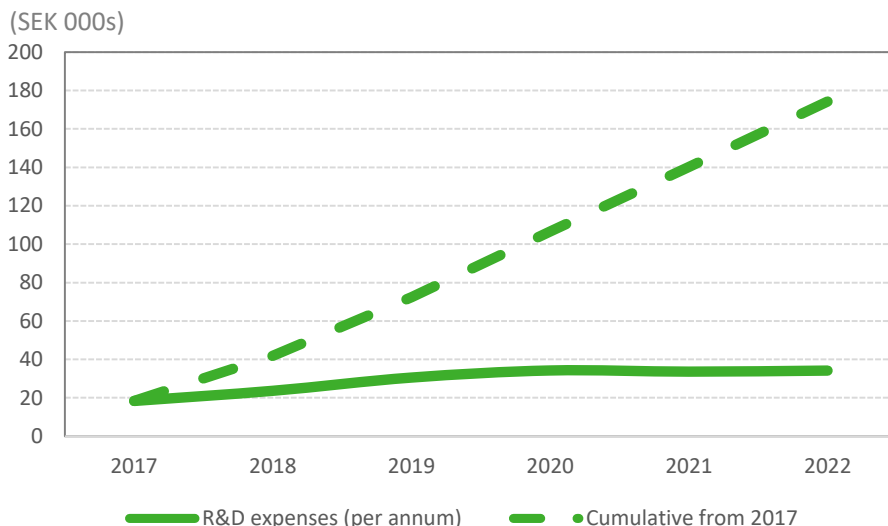
Losses from operations of SEK 12.6 million rose by 3% year-on-year but shrank by 8% on the first six months of 2022. At unchanged currency rates, in effect a stronger SEK, the losses would have been lower (improvements would have been registered also in comparison with the levels recorded in 2021). Net interest income and expenses, influenced by drawdowns of funds from the credit line from July 2022 onwards to a cumulative total of SEK 11.0 million by end of 2022 amounted to a negative SEK 0.3 million.

With no provision for taxes, net income amounted to -SEK 13.0 million, representing a slight decline from a reported -SEK 13.2 million in the year-earlier period and -SEK 13.7 million in the first six months of 2022.

Balance Sheet

At the end of December 2022, **shareholders’ equity** amounted to SEK 0.8 million compared with SEK 13.8 million and SEK 27.5 million six and twelve months earlier, respectively. The reported figure, mimicking total assets in excess of liabilities, should be evaluated on the basis that no value is attached to either the patent portfolio or investments in research and development. Since the beginning of 2017, the Company has invested SEK 174 million in research and development, equivalent to around USD 17 million at current exchange rates. It is the Board of Directors’ belief that investments of this nature will contribute meaningfully to the Company’s inherent ability to generate free cash flow in the coming years.

R&D Expenditures per annum and cumulatively since the start of 2017



Financial Position

At the end of 2022, net current assets, including gross cash of SEK 5.1 million, amounted to SEK 12.2 million, down from SEK 27.5 million a year-earlier. With the addition of the unutilised portion of the credit line (SEK 38.7 million), net liquidity could be assessed to slightly exceed the SEK 50 million mark – more than twice as much as the net consumption of cash from operations in calendar 2022 (SEK 23.4 million). At the end of December 2022, the company’s debt related to the credit line stood at SEK 11.3 million.

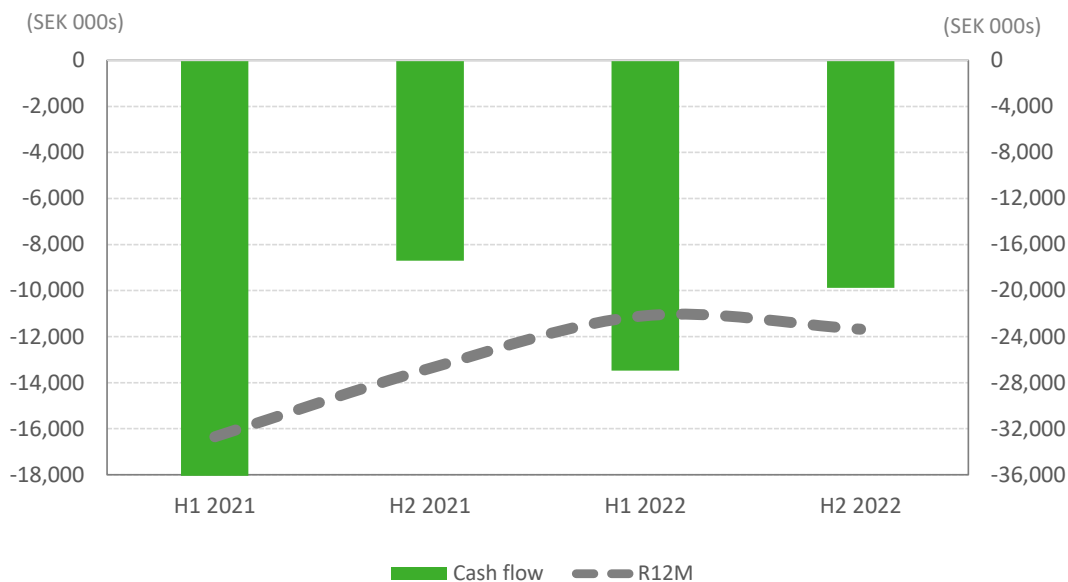
The balance sheet remains completely free of **fixed assets**, even though, as documented in the income statement, ambitious investments in research and development continue to be made. As a result, no charges associated with amortisation and depreciation are expected to be incurred in the near-term.

Cash flow from operations amounted to -SEK 12.6 million (-SEK 12.5 million in H2 2021) before and -SEK 9.9 million (-SEK 8.7 million in H2 2021) after movements of net working capital. No investments, either of tangible or intangible nature, were made in the period. In 2022, total current receivables fell by SEK 3.1 million, while total current liabilities decreased by SEK 0.1 million. As a corollary, net receivables, here defined as total current receivables less total current liabilities, contracted by SEK 3.0 million in 2022.

Cash flow summary

SEK 000s	H2 2020	H1 2021	H2 2021	H1 2022	H2 2022	FY 2021	FY 2022
Cash flow before working capital	-15,298	-9,671	-12,527	-13,737	-12,646	-35,935	-26,383
Working capital	636	-8,377	3,823	261	2,769	-4,293	3,030
Cash flow after working capital	-14,662	-18,048	-8,704	-13,476	-9,877	-40,228	-23,353
Investments	0	0	0	0	0	0	0

Cash flow from operations after working capital by half-year and rolling twelve months (R12M)



Personnel

The number of full-time employees, excluding contractors, in the Group was 61 at the end of December 2022, unchanged from 61 at the end of December 2021. With inclusion of contractors, the headcount broadly corresponding to full-time equivalents stood at 66 at the end of 2022 (71 at the end of 2021).

Risk factors

The Ranplan Group is exposed to several global and Group specific risks that can impact operations and the financial performance, as well as the financial position of the Group. The foreseeable risks are identified and monitored centrally on the basis of established policies. Risk management in the Group aims at positioning the Group to be able to correctly respond to events that may pose dangers and threats to its well-being. Below is a non-exhaustive list of risks, without regard to their level of significance, which the Group consider to be material.

Further details can be found in the IPO prospectus and Annual Reports available on the Group's website.

- ◆ Financing (through a variety of channels)
- ◆ Key personnel (experts and managers)
- ◆ Product development, quality and perception
- ◆ Competition (from existing and new contenders)
- ◆ Customers (delays, requirements, acceptance criteria etc)
- ◆ Intellectual property and business secrets
- ◆ The market price of the company's shares

Implications of COVID-19

Although the dominant strains now appear to reduce the incidence of severe illness and hospitalisations associated with the new corona virus, we will continue to carefully monitor the situation in all markets in which we operate. Caution will be exercised when it comes to travel and face-to-face meetings. We will abide by the recommendations, restrictions and rules set by local authorities. In the event of a resurgence in infections, we shall be prepared to return to a complete 'lock-down'. Experience garnered in 2020-21 serves to demonstrate that our operations can handle such a change in the '*modus operandi*' without any significantly debilitating effects. These remarks notwithstanding, there is no doubt, that COVID-19 has had and to a lesser extent still has negative impact on the company's commercial activities.

Group Consolidated Accounts

In this section, the financial statements for the Group on a consolidated basis are presented. These accounts encompass the Parent Company as well as all its 100% owned subsidiaries (no minorities).

Group income statement by half- and full-year period

GROUP INCOME STATEMENT (KSEK)	H1 2021	H2 2021	H1 2022	H2 2022	FY 2021	FY 2022
Operating income						
Net sales (commercial products)	8,345	6,970	8,007	9,661	15,315	17,668
Other income (research)	4,097	3,314	1,543	1,470	7,411	3,013
Other operating income (tax credits)	4,993	4,619	4,334	4,010	9,612	8,344
Total income	17,435	14,903	13,883	15,141	32,338	29,024
Cost of sales	-113	-102	-267	-533	-215	-800
Gross profit	17,322	14,801	13,616	14,608	32,123	28,224
Research and development	-16,668	-17,602	-17,395	-16,617	-34,270	-34,012
Sales costs	-4,725	-4,934	-5,269	-5,321	-9,659	-10,590
Administration costs	-5,432	-4,098	-5,409	-5,417	-9,530	-10,826
Other operating income/expenses	-168	-461	720	101	-629	821
Operating profit	-9,671	-12,294	-13,737	-12,646	-21,965	-26,383
					0	
Financial items					0	
Financial income and expenses	-963	-1,030	17	-330	-1,993	-313
Total financial items	-963	-1,030	17	-330	-1,993	-313
					0	
Income after financial items	-10,634	-13,324	-13,720	-12,976	-23,958	-26,696
Tax	0	0	0	0	0	0
Net income for the period	-10,634	-13,324	-13,720	-12,976	-23,958	-26,696

Group balance sheet by end of half-year period

GROUP BALANCE SHEET (KSEK)	30 JUN 2021	31 DEC 2021	30 JUN 2022	31 DEC 2022
Assets				
Fixed assets				
Tangible fixed assets				
Equipment, tools, fixtures and fittings	0	0	0	0
Total fixed assets	0	0	0	0
Current assets				
Accounts receivable - trade	5,150	4,614	5,538	2,974
Other current receivables	10,600	8,814	4,828	8,823
Prepaid expenses and accrued income	7,441	4,821	6,640	3,363
Total current receivables	23,191	18,248	17,006	15,160
Cash and bank balances				
Cash and bank	1,831	17,409	3,949	5,072
Total current assets	25,021	35,658	20,955	20,232
Total assets	25,021	35,658	20,955	20,232
Equity and liabilities				
Equity				
Share capital	1,004	1,218	1,218	1,218
Share premium reserve	83,307	133,528	133,528	133,528
Other capital, translation differences and result for the period				
Other capital, translation differences, result	-95,125	-107,227	-120,947	-133,922
Equity attributable to owners	-10,814	27,518	13,798	823
Total equity	-10,814	27,518	13,798	823
Non-current liabilities				
Long term loan	26,576	0	0	11,330
Current liabilities				
Accounts payable - trade	1,495	1,185	1,550	1,566
Other current liabilities	2,451	2,070	1,764	2,021
Accrued expenses and deferred income	5,312	4,884	3,843	4,493
Total current liabilities	9,258	8,139	7,157	8,080
Total equity and liabilities	25,021	35,658	20,955	20,232

Group cash flow statement by half- and full-year period

GROUP CASH FLOW STATEMENT (KSEK)	H1 2021	H2 2021	H1 2022	H2 2022	FY 2021	FY 2022
Operating activities						
Operating result	-9,671	-12,294	-13,737	-12,646	-21,965	-26,383
Issue costs	0	-233	0	0	-233	0
Adjustment for depreciation	0	0	0	0	0	0
Paid interest	0	0	0	0	-600	0
Cash flow before working capital movements	-9,671	-12,527	-13,737	-12,646	-22,198	-26,383
Change in trade receivables	2,044	536	-924	2,564	2,580	1,640
Change in current receivables, accrued income	-6,369	4,406	2,167	-718	-1,963	1,449
Change in trade payables	-219	-310	365	16	-529	381
Change in current liabilities, deferred income	-3,833	-809	-1,347	907	-4,642	-440
Cash flow from operating activities	-18,048	-8,704	-13,476	-9,877	-26,752	-23,353
Investing activities						
Acquisition of tangible assets	0	0	0	0	0	0
Acquisition of subsidiaries	0	0	0	0	0	0
Cash flow from investing activities	0	0	0	0	0	0
Financing activities						
Proceeds from loans	17,500	3,700	0	11,000	21,200	11,000
Repayment of loans		-7,564	0	0	-7,564	0
Proceeds from issues of shares and warrants	38	27,880	17	0	27,918	17
Cash flow from financing activities	17,538	24,016	17	11,000	41,554	11,017
Cash flow of the period	-510	15,312	-13,459	1,123	14,802	-12,336
Cash at the beginning of the period	2,607	1,831	17,409	3,949	2,607	21,358
Exchange rate differences, other effects	-267	267	-1	0	0	-1
Cash and equivalents at period end	1,831	17,409	3,949	5,072	17,409	5,072

Group changes in equity by full year period

GROUP CHANGES IN EQUITY	OTHER		RETAINED	TOTAL
KSEK	SHARE CAPITAL	PAID-IN CAPITAL	EARNINGS	EQUITY
Starting balance 2020-12-31	966	82,353	-83,269	50
Net income for the period			-23,958	-23,958
Issue of equity	252	51,408		51,660
Issue costs		-233		-233
Ending balance 2021-12-31	1,218	133,528	-107,227	27,518
Starting balance 2021-12-31	1,218	133,528	-107,227	27,518
Net income for the period			-26,696	-26,696
Ending balance 2022-12-31	1,218	133,528	-133,922	823

Notes to the consolidated financial information

Summary of significant accounting policies.

This interim report has been prepared in accordance with the Annual Accounts Act and the Swedish Accounting Standards Board's general regulations BFAR 2012:1 Annual Report and Consolidated Financial Statements (K3).

Important estimates and judgments regarding the accounting

Estimates and judgments are evaluated on an ongoing basis and are based on historical experience and other factors, including expectations regarding future events which are seen to be reasonable under the circumstances in place.

The Company's management deems that there is no significant information or judgment in the accounts regarding future developments or other important sources of uncertainty in the estimates undertaken at balance sheet date which would imply a significant risk of a major adjustment in the reported values of the assets and liabilities during the foreseeable future.

Share Data

The number of outstanding shares amounts to 30 438 242. After the annual general meeting in May 2022, 930 000 long-term stock options ("warrants") were sold to members of staff at fair value (18 SEK for 1 000 warrants), bringing the cumulative balance of the four concurrent programmes, one expired in 2022 with no dilution (no new shares created), and the other three until 30 December of 2023, 2024 and 2025, respectively, all with a strike price of SEK 20.60. On 31 December 2022, 2.88 million warrants (for a maximal dilution of circa 9%) were outstanding.

Share Data

At end of period	31 Dec 2020	30 Jun 2021	31 Dec 2021	30 Jun 2022	31 Dec 2022
Number of shares (000s)	24,138	24,138	30,438	30,438	30,438
Number of 2022 warrants (000s)*	815	815	815	815	0
Number of 2023 warrants (000s)*	985	985	985	985	985
Number of 2024 warrants (000s)*	0	965	965	965	965
Number of 2025 warrants (000s)*	0	0	0	930	930
Total number of warrants (000s)*	1,800	2,765	2,765	3,695	2,880
Share price at end of period (SEK)	7.7	6.8	8.0	5.4	1.6
Full time employees	62	64	61	60	61

*Strike price at SEK 20.60, exercisable in Sep-Dec 2022, 2023, 2024 and 2025, respectively.

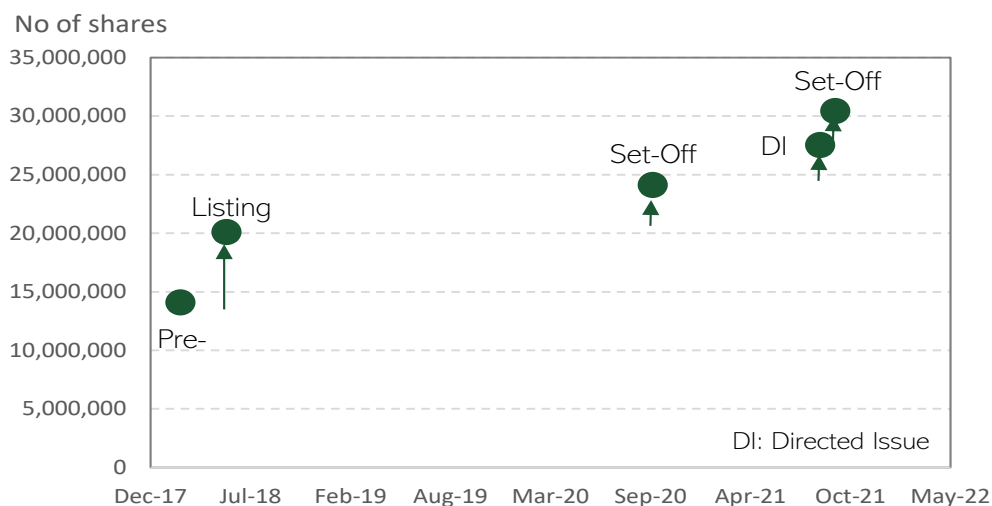
Development of the number of shares outstanding

Number of Shares	Event	New Shares	Total Number	Price/share	Value
Mar-18	Pre-listing	NA	14,098,394	NA	NA
Jun-18	Listing	6,017,418	20,115,812	SEK 10.30	61,979,405
Oct-20	Set-Off Issue	4,022,430	24,138,242	SEK 7.92	31,857,646
Sep-21	Directed Issue	3,400,000	27,538,242	SEK 8.20	27,880,000
Oct-21	Set-Off Issue	2,900,000	30,438,242	SEK 8.20	23,780,000

Parent Company Financial Statements

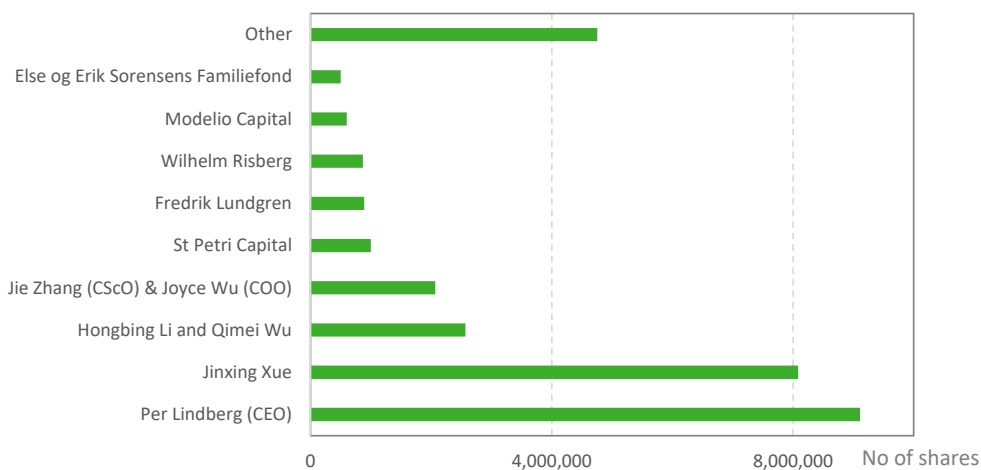
Since the listing of Ranplan Group AB on NASDAQ First North on 28 June 2018 (at a subscription price of SEK 10.30), the number of outstanding shares have increased by approximately 50% from 20 115 812 via 24 138 242 through a Set-Off issue (at a conversion price of SEK 7.92) resulting in 4 022 430 new shares carried out in October 2020 to 30 438 242 through a combination of a Directed Issue (SEK 8.20) translating into 3 400 000 new shares and a Set-Off Issue (SEK 8.20) resulting in 2 900 000 new shares.

Total number of shares outstanding



Shareholders as of 31 Dec 2022*	No of shares	Ownership
Per Lindberg (CEO)	9,106,449	29.9%
Jinxing Xue	8,084,887	26.6%
Hongbing Li and Qimei Wu	2,565,558	8.4%
Jie Zhang (CScO) & Joyce Wu (COO)	2,067,996	6.8%
St Petri Capital	1,000,000	3.3%
Fredrik Lundgren	890,205	2.9%
Wilhelm Risberg	865,403	2.8%
Modelio Capital	600,000	2.0%
Else og Erik Sorensens Familiefond	500,000	1.6%
Other	4,757,744	15.6%
Total	30,438,242	100.0%

*and 2 880k warrants (strike SEK 20.60) outstanding.



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, see organisational chart.

Income Statement

The administration expenses relate to members of the Board, the Chief Executive Officer as well as other costs required to operate the NASDAQ First North Company in accordance with applicable rules. R&D costs concern management of such activities on a global basis.

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 movements in equity are caused by net income, as well as net of infusion of cash where applicable.

Parent Company income statement by half- and full-year period

PARENT COMPANY INCOME STATEMENT (KSEK)	H1 2021	H2 2021	FY 2021	H1 2022	H2 2022	FY 2022
Operating income						
Net sales	4,069	3,451	7,520	2,950	3,264	6,214
R & D costs	-719	-652	-1,371	-653	-653	-1,306
Administration costs	-2,533	-1,482	-4,015	-2,431	-2,284	-4,715
Operating income	817	1,316	2,133	-134	327	193
Financial income and expense	-963	-1,029	-1,992	17	-330	-313
Income before taxes	-146	287	141	-117	-3	-120
Net income for the period	-146	287	141	-117	-3	-120

Parent Company balance sheet by end of half-year period

PARENT COMPANY BALANCE SHEET (KSEK)	30 JUN 2021	31 DEC 2021	30 JUN 2022	31 DEC 2022
Assets				
Investments				
Financial assets				
Shares in subsidiaries	3,396	3,396	3,396	3,396
Total investments	3,396	3,396	3,396	3,396
Current assets				
Receivables from Group Companies	107,052	120,132	130,862	142,345
Other receivables and prepayments	140	147	99	153
Cash and bank balances	246	11,638	303	95
Total current assets	107,438	131,917	131,264	142,591
Total assets	110,834	135,313	134,660	145,986
Equity and liabilities				
Restricted equity				
Share capital	1,004	1,218	1,218	1,218
Non-restricted equity				
Share premium reserve	82,353	133,528	133,528	133,528
Retained earnings	-1,554	-1,700	-1,413	-1,530
Net income	-146	287	-117	-3
Total non-restricted equity	80,653	132,115	131,998	131,995
Total equity	81,656	133,333	133,216	133,212
Current liabilities				
Accounts payable - trade	3	80	49	0
Other payables	808	730	189	189
Accrued expenses	1,828	1,171	1,206	1,255
Total current liabilities	2,639	1,980	1,444	1,444
Long-term Loan	26,576	0	0	11,330
Total liabilities	29,215	1,980	1,444	12,774
Total equity and liabilities	110,834	135,313	134,660	145,986

Parent Company Cash flow statement by half- and full-year period

PARENT COMPANY CASH FLOW STATEMENT (KSEK)	H1 2021	H2 2021	FY 2021	H1 2022	H2 2022	FY 2022
Operating activities						
Operating income	817	1,316	2,133	-134	327	193
Issue costs	0	-233	-233	0	0	0
Interest received	0	0	0	0	0	0
Interest paid	0	0	0	0	0	0
Cash flow before working capital movements	817	1,083	1,900	-134	327	193
Change in current assets	-18,825	-13,087	-31,912	-10,682	-11,537	-22,219
Change in current liabilities	338	-659	-321	-536	0	-536
Change in other liabilities	0	0	0	0	0	0
Cash flow after working capital movements	-17,670	-12,663	-30,332	-11,351	-11,210	-22,562
Financing activities						
Proceeds from issue of shares and warrants	6	27,880	27,886	3	0	3
Proceeds from loan	17,500	3,700	21,200	0	11,000	11,000
Loan interest	0	-7,564	-7,564	0	0	0
Cash flow from financing activities	17,506	24,016	41,552	3	11,000	11,003
Cash flow of the period	-164	11,354	11,190	-11,348	-210	-11,559
Brought forward	416	246	416	11,638	303	11,638
Other effects	-6	38	32	13	2	16
Cash and equivalents at period end	246	11,638	11,638	303	95	95

Parent Company change in equity by end of year

PARENT COMPANY CHANGES IN EQUITY KSEK	SHARE CAPITAL	OTHER PAID-IN CAPITAL	OTHER EQUITY	TOTAL EQUITY
Starting balance 2021-12-31	1,218	133,528	-1,413	133,332
Net income for the period			-120	-120
Ending balance 2022-12-31	1,218	133,528	-1,533	133,212

Abbreviations and Terminologies

Total Income comprises the sum of

Net sales (related to commercial products and services),
Other income (emanating from research projects) and
Other operating income (drawn from R&D tax credits)

Gross profit is here defined as the difference between Total income and cost of sales.

Gross margin is here defined as the ratio between gross profit and Total Income.

Other operating income represents R&D qualified tax credits offered by the UK government in support of advances of science and technology.

Other expenses encompass taxes and other governmental charges as well as effects of FX movements.

Depreciation: Ranplan doesn't capitalise its own or 3rd party software or hardware (e.g. computers). The only fixed assets on the balance sheet relate to office equipment which are written off over 24 months.

Amortisation: As no R&D expenses or intellectual property rights are capitalised, there are no intangible assets held on the balance sheet. Consequently, no amortisation of intangible assets is being made.

Income tax: Ranplan does not incur income tax at this juncture. On sales to certain countries, the buyer deducts a withholding passed to its local government. These withholdings may be recovered in future (in the case of which reversals occur). The withholding tax is part of other expenses in the income statement.

EBITDA: Operating income (often abbreviated EBIT – earnings before interest and tax) in the income statement is often identical to EBITDA, earnings before interest, tax, depreciation and amortisation.

Abbreviations

R&D: Research and Development

S&M: Sales and Marketing

G&A: General and Administration

OPEX: Operating Expenditures

D&A: Depreciation and Amortisation

Gross profit: gross margin x total income

EPS: Earnings per share

AI: Artificial Intelligence

ML: Machine Learning

IPR: Intellectual Property Rights

OSS: Operations Support Systems

RF: Radio Frequency

Company Description

Ranplan Group AB with its wholly owned subsidiaries is a software company that develops and markets a suite of solutions that allow mobile network operators, telecommunication equipment vendors, neutral hosts, enterprises and system integrators to cost effectively and accurately plan, design and optimise 4G (LTE), 5G and Wi-Fi wireless networks inside the walls of buildings and in outdoor urban environments.

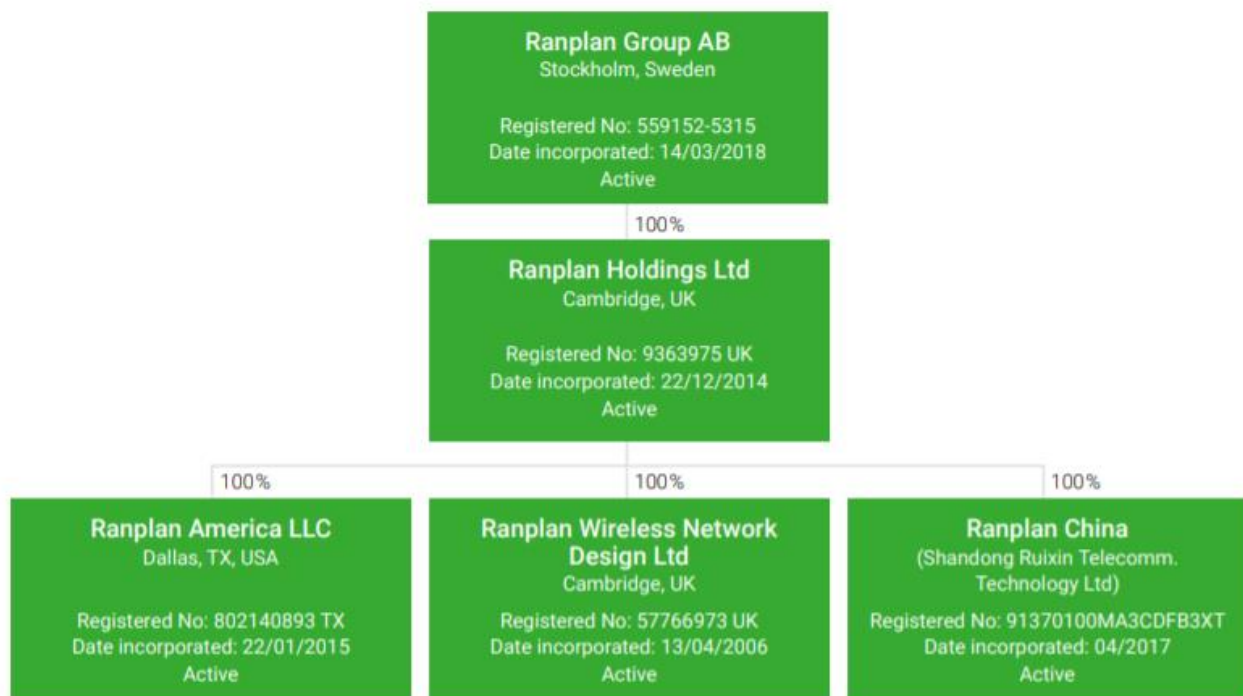
The purpose of an in-building wireless network is to provide enhanced network coverage and/or capacity when the existing outdoor network is not able to adequately satisfy the exacting requirements. Coverage may be poor due either to high penetration losses caused by the building structure or the materials used that are designed to improve the 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 stadia and convention centres where many thousands of users may be trying to simultaneously access the network, causing severe congestion.

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 construct in-building wireless networks has increased and will continue to increase.

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. While the nature of the company's operations entail that its results are likely to vary markedly between reporting periods, Senior Management will continue to prioritise the creation of lasting industrial value.

Ranplan Group AB has been listed on Nasdaq First North Stockholm since June 2018, trading with the ticker RPLAN, ISIN: SE0011178201. It is the parent company of the Group with the following wholly-owned subsidiaries: (i) Ranplan Holdings Ltd (UK), (ii) Ranplan Wireless Network Design Ltd (UK), (iii) Ranplan China (Shandong, Ruixin Telecomm. Technology Ltd, China), and (iv) Ranplan America LLC (Dallas, Texas, USA). All votes and shares in the subsidiaries are held by companies within the Group.

Organisational Chart



The Board of Directors and CEO hereby assure that this Annual Statement for calendar and fiscal 2022 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.

The English version of this report takes precedence over any other representation.

Stockholm, Sweden
24 February 2023
Ranplan Group AB (publ)
The Board of Directors

Tomas Isaksson, Chairman

Jie Zhang

Wen Yang

Jon Ullmark

Per Lindberg, CEO

Other information

Auditor's review

This interim report has not been reviewed by the company's auditors.

2022 Annual General Meeting

The Annual General Meeting was held on 16 May 2022 in Stockholm, Sweden.

Certified Adviser

FNCA Sweden AB

Questions regarding this interim report are answered by:

CEO Per Lindberg

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Telephone: +46 79 340 7592

Financial calendar – provisional dates in 2023

24 Feb: Annual Statement for 2022

3 April: Annual Report for 2022

24 April: AGM for 2022, in Stockholm, Sweden

24 Aug: Interim Report for the first half of 2023

Contact

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Date: 24 Feb 2023