REDEYE

Next Generation Wireless (5G/6G) 2023



AGENDA MARCH 14 2023

09.00	**Introduction Redeye**	Jesper von Koch + Rasmus Jacobsson, analysts
09.10	**Accenture/Northstream**	Bengt Nordström, Managing Director
09.30	**Ericsson**	Erik Ekudden, CTO
09.40	**Huawei**	Kenneth Fredriksen, Executive VP, CEE & Nordic
09.50	*Panel discussion (Accenture, Ericsson, Huawei)*	
10.05	**Sivers Semiconductors**	Anders Storm, CEO
10.17	**Enea**	Jan Häglund, CEO
10.29	**Hexatronic**	Magnus Angermund, Head of Northern Europe
10.41	Short break	
10.51	**Wyld Networks**	Alastair Williamson, CEO
11.03	**Maven Wireless**	Pär Tjernström, Head of Sales
11.15	**BeammWave**	Stefan Svedberg, CEO
11.27	**Net Insight**	Crister Fritzson, CEO
11.39	Short break	
11.45	**Tre - operator perspective**	Jonas Knape, Chief Digital Officer (CDO)
11.55	**Lund University, LTH: 6G perspective**	Fredrik Tufvesson, Professor
12.05	*Panel discussion (Tre, LTH)*	
12.15	Lunch for all speakers & investors	

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The Redeye Technology Team

THE REDEYE TECHNOLOGY TEAM



Erik Kramming
Client Manager & Head of Technology

Erik has a Master of Science in finance from Stockholm University. His previous work has included a position at Handelsbanken Capital Markets. At Redeye, Erik works with Corporate Broking for the Technology team.



Greger Johansson
Client Manager & Co-head Technology

Greger has a background from the telecom industry, both from large companies as well as from entrepreneurial companies in Sweden (Telia and Ericsson) and USA (Metricom). He also spent 20+ years in investment banking (Nordea and Redeye). Furthermore, at Redeye Greger advise growth companies within the technology sector on financing, equity storytelling and getting the right shareholders/investors (Corporate Broking). Coder for two published C64-games. M.Sc.EE and M.Sc.Econ.



Johan Ekström
Client Manager

Johan has a Master of Science in finance from the Stockholm School of Economics, and has studied e-commerce and marketing at the MBA Haas School of Business, University of California, Berkeley. Johan has worked as an equity portfolio manager at Alfa Bank and Gazprombank in Moscow, as a hedge fund manager at EME Partners, and as an analyst and portfolio manager at Swedbank Robur. At Redeye, Johan works in the Corporate Broking team with fundamental analysis and advisory in the tech sector.



Erik Rolander
Client Manager

Erik has a Master's degree in finance from Linköpings Universitet. He has previously worked at Remium as a tech analyst and product manager for the equity research platform Introduce.se, which today is owned by ABG Sundal Collier. At Redeye, Erik works with Corporate Broking for the Technology team.



Niklas Blumenthal
Client Manager

Niklas has studied business administration at Uppsala University and has over 20 years of experience in the financial market. He has previously worked as client manager at Nordnet, CMC Markets, Remium and ABG Sundal Collier. At Redeye, Niklas works with Corporate Broking in both Technology and Life Science teams.



Gustav Olin Månsson
Client Manager

Gustav has a Master's degree in business administration from Karlstad University. He has previously worked at PwC as an auditor towards listed entities. At Redeye, Gustav works with Corporate Broking for the Technology team.



Eddie Palmgren
Client Manager & Host of Investing by the Books Podcast

Eddie has a Bachelor of Science in finance from Stockholm University, with an additional Master's Year in Taiwan. He has been an investor for nearly 15 years and joined Redeye in 2014, working as an Equity Analyst and Editor. Currently, Eddie is a Client Manger and the host of Investing by the Books Podcast.



Tomas Otterbeck
Head of Research

Tomas gained a Master's degree in Business and Economics at Stockholm University. He also studied Computing and Systems Science at the KTH Royal Institute of Technology. Tomas was previously responsible for Redeye's website for six years, during which time he developed its blog and community and was editor of its digital stock exchange journal, Trends. Tomas also worked as a Business Intelligence consultant for over two years.



Hjalmar Ahlberg
Analyst

Hjalmar is an equity analyst within the technology team focusing on gaming and online gambling sectors. He holds a Master's degree in finance and has previously worked within the banking industry with focus on equity research covering various sectors.



Henrik Alveskog
Analyst

Henrik has an MBA from Stockholm University. He started his career in the industry in the mid-1990s. After working for a couple of investment banks he came to Redeye, where he has celebrated 10 years as an analyst.



Christian Binder
Analyst

Christian has a Master of Science in biology from Uppsala University and a Master of Business Administration from Edinburgh University. Previous positions included roles in public healthcare, academia, and the pharmaceutical industry. He works as an equity analyst at Redeye, with a particular interest in serial acquirers.



Mattias Ehrenborg
Analyst

Mattias is an equity analyst within Redeye's technology team, primarily focusing on the renewable energy & cleantech sectors. He holds a BSc in Business and Economics from Uppsala University. Mattias has previously worked as an equity analyst at ABG Sundal Collier and SEB.



Alexander Flening
Analyst

Alexander is an equity analyst within Redeye's technology team. He holds a BSc in Economics & Statistics from Stockholm University. For five years he worked as an Investment Manager in a family-run business focusing on life science and technology.



Jessica Grunewald
Analyst

Jessica is an equity analyst within the technology team focusing on the digital health sector. She holds a BSc in Business Administration from Lund University and a Master's in Entrepreneurship from Stockholm University. She has previously worked at MTG for ten years lastly as VP Digital, bringing in Esports and digitizing MTGs traditional business. She also has a background as an entrepreneur.

THE REDEYE TECHNOLOGY TEAM



Anton Hoof
Analyst

Anton is an equity analyst within the technology team at Redeye. He holds a Master of Science in Business and Economics from Linnaeus University. Anton has previously worked at EY as an auditor.



Mats Hyttinge
Analyst

Mats is an equity analyst in the technology & life science team at Redeye. He has an MBA and Bachelor degree in Finance from USE in Monaco.



Rasmus Jacobsson
Analyst

Rasmus is an equity analyst within Redeye's technology team. He has a BSc from KTH Royal Institute of Technology.



Jesper von Koch
Analyst

Jesper is an equity analyst in the technology team with a focus on telecom, automotive tech and more. He holds a Master's degree in Industrial Engineering and Management from Lund University, institute of technology. In addition, he has studied abroad in Madrid. He has previously worked as an entrepreneur, management consultant and business development manager at a B2B SaaS company. He has also run a stock-research blog for nearly five years.



Viktor Lindström
Analyst

Viktor is an equity analyst in the technology team, focusing on gaming and cleantech sectors. He holds a Master's degree in Finance from University of Gothenburg. Previously, he held positions at Carnegie Investment Bank and Consensus Asset Management.



Fredrik Nilsson
Analyst

Fredrik is an equity analyst within Redeye's technology team. He has an MSc in Finance from University of Gothenburg and has previously worked as a tech-focused equity analyst at Remium.



Fredrik Reuterhäll
Analyst

Fredrik worked as a cash equity trader at East Capital for almost seven years before joining Redeye as an equity analyst within the technology team. Fredrik has a M.Sc. in finance from Stockholm University.



Mark Siöstedt
Analyst

Mark has a Master's degree in Accounting and Finance from Lund University. He has a dual role within Redeye as an editor (quality assurance and Top Picks) and as an equity analyst on the technology team.



Jacob Svensson
Analyst

Jacob Svensson is an equity analyst within the technology team, focusing on software companies. He holds a BSc in Business Administration and a Master's in Finance from Lund University and has previously worked within the banking industry and asset management.



Niklas Sävås
Analyst

Niklas has more than ten years experience from the financial industry working within banking and financial technology. He started his first company in 2016 focused on consultancy and investments. Niklas has a dual role within Redeye where he splits his time between the podcast Investing By The Books, Redeye Academy and as an analyst on the technology team. He has a bachelor degree in Business and Economics from SLU.



Oskar Vilhelmsson
Analyst

Oskar holds a BSc in Finance from University of Gothenburg and has previously worked as an analyst at Carnegie and as a consultat within Investor Relations. Oskar works as an equity analyst, covering companies in the tech sector with a prime focus on cleantech and consumer discretionary.



Danesh Zare
Analyst

Danesh has a Master's degree in mechanical engineering from the Royal Institute of Technology. He has previously worked as a Calculation Engineer for more than 6 years, holding positions at both Scania and Volvo Trucks. He also produced a finance podcast for nearly two years. Danesh joined Redeye in 2020 and works as an equity research analyst, covering companies in the tech-sector, with a focus on gaming companies

Technology Selected Transactions



2023

			ENERGY SAVE **FEBRUARY 2023** Directed Issue & Secondary Pl. 279 MSEK	THING **JANUARY 2023** Directed & Rights Issue 30 MSEK

2022

advenica **JULY 2022** Rights Issue SEK 66 MSEK	SOFTHOUSE **JUNE 2022** Private Placement SEK 27 MSEK	NGENIC **JUNE 2022** Rights Issue SEK 25 MSEK	VERTISEIT **APRIL 2022** Public Take-Over on MultiQ 197 MSEK	CombinedX **MARCH 2022** IPO 60 MSEK

2018-2021

CSEC **DECEMBER 2021** Rights Issue 30 MSEK	W5 **DECEMBER 2021** IPO 35 MSEK	netmore **DECEMBER 2021** Rights Issue 43 MSEK	Mestro **DECEMBER 2021** IPO 40 MSEK	COM PODIUM **NOVEMBER 2021** IPO 65 MSEK
CombinedX **OCTOBER 2021** Private Placement 124 MSEK	BEYOND FRAMES **JULY 2021** Directed Issue 45 MSEK	NFO DRIVES **JULY 2021** Directed Issue 15 MSEK	Physitrack **JUNE 2021** IPO Selling Agent 201 MSEK	xenergic **JUNE 2021** Private Placement 40 MSEK
Alelion **MAY 2021** Rights Issue 25 MSEK	Corpia **MAY 2021** Private Placement 30 MSEK	NGENIC **MAY 2021** IPO 60 MSEK	OMBORI **FEBRUARY 2021** Private Placement 60 MSEK	SAVR **DECEMBER 2020** Private Placement 52 MSEK
clavister **NOVEMBER 2020** Directed Issue + Rights Issue 204 MSEK	KebNi **OCTOBER 2020** Rights Issue 50 MSEK	OXEMARINE **OCTOBER 2020** Directed Issue 66 MSEK	Alelion **OCTOBER 2020** Rights Issue 57 MSEK	xmreality **MARCH 2020** Rights Issue 36 MSEK
COM PODIUM **DECEMBER 2019** Pre-IPO 18 MSEK	MOBA NETWORK **NOVEMBER 2019** IPO 26 MSEK	CIMCO **OCTOBER 2019** Rights Issue 51 MSEK	JAYS **JUNE 2019** Rights Issue 40 MSEK	TagMaster **MAY 2019** Directed Issue + Rights Issue 139 MSEK
Alelion **MAY 2019** Rights Issue Co-Lead Manager 135 MSEK	ATARI **APRIL 2019** Dual Listing 10 MSEK	CIMCO **APRIL 2019** Rights Issue 102 MSEK	Tegnion **MARCH 2019** IPO 80 MSEK	zwipe **JANUARY 2019** IPO Joint Bookrunner 120 MSEK
LightAir **NOVEMBER 2018** Rights Issue 25 MSEK	SIVERSIMA **OCTOBER 2018** Direced Issue 43 MSEK	xmreality **OCTOBER 2018** Directed Issue 21 MSEK	crunchfish **OCTOBER 2018** Right Issue 39 MSEK	GOODBYE KANSAS **JUNE 2018** Private Placement 108 MSEK
ALLGON **JUNE 2018** Rights Issue Join Lead Manager 127 MSEK	captario **JUNE 2018** Private Placement 50 MSEK	JONDETECH **MAY 2018** IPO 30 MSEK	Tegnion **APRIL 2018** Private Placement 20 MSEK	FSPORT **FEBRUARY 2018** Private Placement 20 MSEK



5G Report 2023

5G is continuing to roll out globally

Despite a weakening economy and geopolitical uncertainty, service providers continue to implement 5G, with 228 commercial 5G services currently available internationally. Deployment of 5G standalone (SA) networks continues, with around 35 service providers deploying or launching 5G SA in public networks. The most frequent 5G services introduced for customers by service providers include enhanced mobile broadband (eMBB), Fixed Wireless Access (FWA), gaming, and certain AR/VR-based applications.

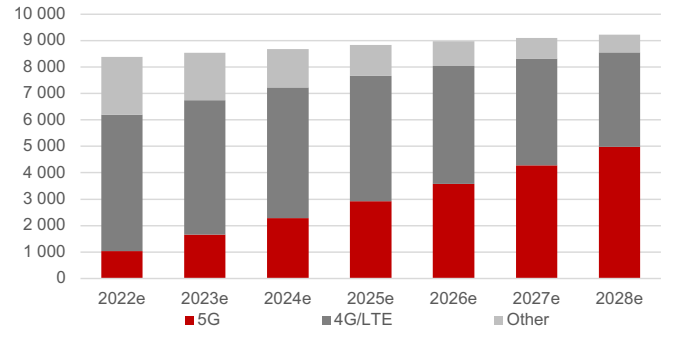
Strong surge in 5G subscriptions

5G subscriptions increased by 110 million during Q3 2022 to roughly 870 million, with a total of 1 billion predicted by the end of 2022. North America and Northeast Asia are predicted to have the greatest 5G subscriber penetration at roughly 35% by the end of 2022, followed by Gulf Cooperation Council nations (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates) at 20% and Western Europe at 11%.

While 5G adoption has been slower than the industry initially forecasted, 5G is expected to reach 1bn subscribers two years faster than 4G did once it was released in 2009. However, during this time, phone penetration has since increased drastically. According to Statista, there were 4.5bn mobile subscriptions in 2009 compared to an expected 8.4bn by the end of 2022.

See below for the expected penetration rate of various technologies from today to 2028e.

Mobile subscriptions by technology (bn)

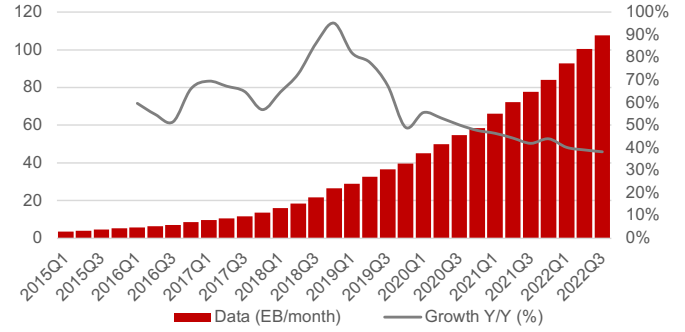


Source: Ericsson mobility report, 2022-11

Rapid data traffic growth

The rapid mobile data traffic growth continues. According to Ericsson's latest mobility report from November 2022, data traffic continues to grow at a rapid pace, though somewhat decelerating from a high base.

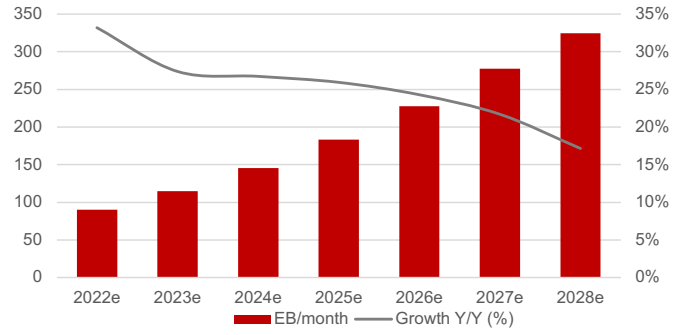
Mobile data traffic growth



Source: Ericsson Mobility report, 2022-11

The data traffic is expected to continue to grow with a CAGR of 24% until 2028, decelerating further from the historical rate of almost 40%.

Expected mobile data traffic growth 2022-2028



Source: Ericsson Mobility report, 2022-11

The rapid data growth is due to higher consumption of data-heavy content. This requires improved efficiency and capacity from the cellular networks, which will be a main differentiator compared to 4G LTE. We will now discuss some of the key technologies for 5G.

Improved antenna technologies & mmWave as an enabler

While 4G LTE can offer download speeds in hundreds of Mbps, 5G is expected to bring peak data rates in Gbps. This will be enabled by increased use of high-capacity spectrums. Ultra-high speed is achieved by using millimeter wave (mmWave) frequency bands. The use of mmWave technology offers higher throughput (speed) through increased bandwidth, at the expense of weaker coverage as the shorter signals cannot travel as far. mmWave therefore requires network densification, i.e. building more cell sites with shorter distance between each other, in order to improve capacity and coverage. Antenna technologies that enhance the signals, like beamforming and MIMO, are important complements to unleash the power of mmWave.

However, far from all 5G connections will be mmWave based. The specifications are divided into different frequency ranges, such as FR 1 (sub-6GHz) and Fr 2 (>24 GHz). Sub-1GHz has an important role in widespread coverage and support of IoT services, while 1-6GHz offers a mix of coverage and capacity advantages.

mmWave has yet to find a solid use case, with only 9% of 5G services using the mmWave spectrum globally, while more than 50% use sub-6GHz and another 38% use low and mid bands. The sub-6GHz bands are used because they have a better balance of coverage and capacity and are close to the 4G bands. 5G mmWave has only been commercialized in the United States, South Korea, Japan, Italy, and Australia.

Aside from mobile broadband, the higher data transfer speed of 5G also makes it highly relevant for fixed wireless access (FWA) use cases. FWA will be a complement and a substitute to fiber-to-the-home (FTTH) connections, replacing last-mile cables with wireless connectivity. Importantly, 5G and fiber are not mutually exclusive. On the contrary, 5G will require lots of fiber to connect the new cell sites, meaning 5G is not a threat to fiber companies, in our view. According to The Fiber Broadband Association, 5G requires 16 times as much fiber as 4G.

It is not just about telecom

There are, simply put, three main scenarios supported by 5G: enhanced mobile broadband (eMBB), massive machine-type communications (mMTC), and ultra-reliable and low latency communications (URLLC). The advantages of 5G are not limited to the telecommunication industry and smartphones. The increased demand for improved connectivity is also driven by new, emerging technologies that impose needs for greater transmission speeds, lower latency, and reliable connections to accommodate data-heavy transmissions and mission critical applications. Some examples include autonomous vehicles, machine to machine connections (industrial IoT), virtual reality, augmented reality, and industrial automation (the so-called Industry 4.0 trend). In other words, introducing the next-gen wireless network standard is crucial for a vast number of industries.

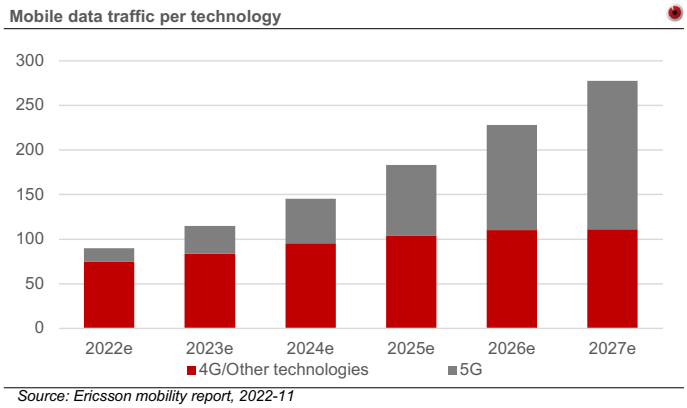
Major 5G investments across the board

According to Global Mobile Suppliers Association (GSA), 493 (409 in early 2021) operators in 150 countries/territories (129 in early 2021) are investing in 5G, whereof 108 (58 in early 2021) operators are involved 5G standalone. GSA states that there are 214 operators in 85 countries that have announced 3GPP-compatible 5G service launches, compared to 125 operators in 52 countries in our last report from early 2021.

The deployments can be split into three different categories: 1) New sub-6GHz bands, 2) mmWave deployments, and 3) deployments in existing LTE bands. The first deployments were so-called non-standalone (NSA), i.e. the early version of 5G, where the new deployments were making use of existing 4G LTE hardware infrastructure, with enhanced mobile broadband (eMBB) being the primary use case.

One should note that the roll-out will be slow, like with 4G. 5G is therefore a lengthy growth trend that will play out over many years, as indicated in the graph below. For instance, in 2025, 4G and other technologies will still account for most of the total

(57% versus 43% 5G), according to Ericsson. 5G will become the main technology as late as 2026, although only by a minor margin (51%). These estimates have been revised downwards, compared to the report from two years earlier. In that report, Ericsson estimated that 5G would account for 46% in 2025 and 54% in 2026.



Source: Ericsson mobility report, 2022-11

Rollouts of new mobile communication networks require enormous investments. According to the GSM Association (GSMA), operators are expected to invest more than USD600bn in 5G-related capex between 2022 and 2025. We note that GSMA expected operators to spend USD850bn between 2020–2025 in our earlier report. Hence, we assume that operators have invested somewhere around the USD250bn that makes up the difference between these estimates. 85% of the capex figure is expected to be spent on networks. Apart from large investments in network equipment, operators are also spending substantial amounts on spectrum licenses.

Over 1200 5G devices announced

According to GSA, there were 1,276 announced 5G devices by early January 2022, up from 628 devices two years before. Out of these 1276 devices, 873 were commercially available, corresponding to a 15% q/q growth. In total, 633 phones, up from 306 since our last report in early 2021, have been launched, of which 560 currently commercially available, according to GSA. 210 FWA CPE devices (indoor & outdoor) have been launched, of which 98 are commercially available, up from 122, and 47, respectively as of our last report in early 2021.

5G rollout status per region

Asia is a clear leader in 5G deployment. Globally, South Korea is the leader in 5G deployment with over 160,000 5G base stations, or 319 people per base station. South Korea is followed by China which have 916,000 base stations, or 1,531 people per base station. Contrary to a common belief that the EU is the furthest behind in 5G deployment is that the EU leads the US in terms of base stations at 147,000, or 3,039 people per base station. According to EU 5G observatory, Europe has commercial 5G available in 27 EU member states. Moreover, according to EU 5G observatory, 39 commercial launches took place in Europe in 2022, of which 23 were NSA (c60%).

From a spectrum perspective, the 3.6 GHz band (also known as mid-band) is the most adopted as it tends to have the best performance-range characteristics. The 28GHz band is also well adopted in South Korea, Japan, and the USA. While in the EU, each country assigns their own spectrum which makes it a bit more complex. However, most countries have at least assigned the 3.6 GHz spectrum for 5G deployment. Meanwhile, eight EU member states have assigned the 26GHz band, for which demand has been the lowest so far.

The leading 5G countries are 1) China, 2) South Korea, 3) USA, 4) Spain, and 5) the UK.

In China, the major carriers (China Unicom, China Mobile and China Telecom) launched in 2019. Per March 2022, China had shipped 128m 5G phones and had built almost 1.0m base stations.

In South Korea all three players (SK Telecom, KT and LG Uplus) launched early in 2018 and 2019. Per the end of 2020, the total number of 5G users in South Korea reached 9m users – and is expected to reach 40m by 2025.

The major carriers in the US (AT&T, Verizon, Sprint & T-Mobile) launched 5G in 2018-2019 – and by 2026, the expected number of 5G subscriptions is 195m.

According to GSMA, the 5G penetration will be highest in the US in 2025 (48%), closely followed by China (47%). The corresponding figure for Europe is 34%.

Value chain

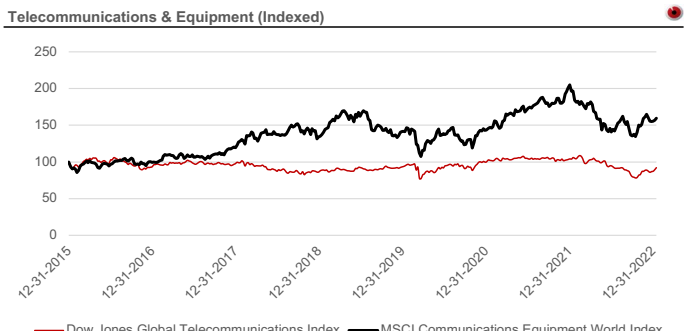
While 5G has a complex ecosystem that will have an immense impact on a range of industries, we have made a simplified, conceptual image of the value chain below, consisting of technology/component providers, system equipment manufacturers, mobile carriers, and device manufacturers. Typically, the network operators are usually the ones that face the end users (enterprises and consumers). Some players are vertically integrated and provide products and services in several parts of the value chain. Most notably, Huawei and Samsung both provide devices (e.g. CPEs and smartphones) as well as infrastructure equipment. Major semiconductor companies like e.g. Qualcomm, Broadcom and NXP are some other important 5G stakeholders worth mentioning. Importantly, there is a lot of scrutiny around Chinese equipment vendors such as Huawei and ZTE , who are banned from operating in the US. Some European countries have also banned these equipment vendors over national security risks.



Source: Redeye Research

Flat performance for the global telecom index

While the Dow Jones Global Telecommunications Index, the aggregated market values of telecom stocks have increased by 33% since 2016, the MSCI Communications Equipment vendors invest has increased 109% during the same period.



Valuation metrics

In the peer table below, we include a FactSet selection of the most relevant telecom players. Overall, similar to our last 5G report, larger operators are trading at higher multiples than the big telecom equipment vendors (excluding outliers). EV EBIT-multiples are e.g. about twice as high for the operators. The equipment vendors, while trading at lower EV/EBIT multiples, are expected to grow annually by 13-15% while telecom operators are expected to grow at 3-5%. Part of the reason could be that 5G requires more equipment and that vendors are paid up from while operators sell their services on a subscription basis. Another reason could be that the telecom operators we have selected operate in mature markets, while the equipment vendors have a higher exposure to emerging markets.

Looking at the 5G-exposed small- and mid-cap companies, most of them are not expected to turn to profit in the near term, as they are in high-growth mode. There is a major expected growth ahead, which is reflected in significantly higher EV/S multiples.

	Enterprise Value	EV/Sales		EV/EBIT		Sales CAGR	EBIT-margin		
Company	**mSEK**	**2023e**	**2024e**	**2023e**	**2024e**	**2022-2024E**	**2022**	**2023e**	**2024e**
Equipment vendors									
Telefonaktiebolaget LM Ericsson Class B	192,912	0.7	0.7	6.7	5.7	3%	11%	10%	12%
Nokia Oyj	256,201	0.9	0.9	7.0	6.7	3%	9%	13%	13%
ZTE Corporation Class A	157,471	1.1	1.0	13.7	12.1	12%	8%	8%	8%
Average	202,195	0.9	0.8	9.1	8.1	6%	9%	10%	11%
Median	192,912	0.9	0.9	7.0	6.7	3%	9%	10%	12%
Telecom operators									
Telia Company AB	208,935	2.2	2.2	18.4	16.9	2%	-10%	12%	13%
Tele2 AB Class B	100,666	3.5	3.4	18.9	17.4	2%	22%	19%	20%
Telenor ASA	296,221	2.9	2.8	16.0	14.5	1%	19%	18%	20%
Elisa Oyj Class A	112,938	4.5	4.3	20.4	19.3	4%	22%	22%	23%
AT&T Inc.	3,126,505	2.4	2.4	12.2	11.7	3%	-4%	20%	20%
Verizon Communications Inc.	3,494,030	2.4	2.4	10.8	10.6	3%	22%	22%	22%
T-Mobile US, Inc.	3,036,497	3.6	3.4	19.5	15.7	4%	8%	18%	22%
Average	1,482,256	3.1	3.0	16.6	15.2	3%	11%	19%	20%
Median	296,221	2.9	2.8	18.4	15.7	3%	19%	19%	20%
Redeye universe*									
Hexatronic Group AB	28,243	4.1	2.8	26.3	17.7	34%	16%	16%	16%
Gapwaves AB Class B	727	10.2	8.1	-29.8	-24.8	45%	-34%	-43%	-18%
Sivers Semiconductors AB	2,370	70.7	7.9	-6.9	-8.5	84%	-156%	-92%	1%
Netmore Group AB Class B	395	7.7	5.5	-6.7	-9.9	73%	-116%	-56%	0%
Wyld Networks	134	62.6	3.3	-3.5	-3.8	565%	-1795%	-55%	-19%
Enea AB	2,726	2.4	2.3	22.8	15.9	93%	36%	14%	15%
Average	5,766	26.3	5.0	0.4	-2.2	149%	-342%	-36%	-1%
Median	1,548	9.0	4.4	-5.1	-6.2	78%	-75%	-49%	1%
Ranplan Group AB	48	N/A	N/A	N/A	N/A	N/A	-91%	N/A	N/A
Clavister Holding AB	451	2.6	2.5	-6.3	-10.0	N/A	-41%	N/A	N/A
Tecnotree Oyj	1,569	1.7	1.6	6.5	5.4	9%	26%	26%	26%
BeammWave AB Class B	85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Average	538	2.2	2.0	0.1	-2.3	9%	-35%	26%	26%
Median	268	2.2	2.0	0.1	-2.3	9%	-41%	26%	26%

Source: Factset, Redeye Research

** Redeye Research own estimates*

Covered Companies





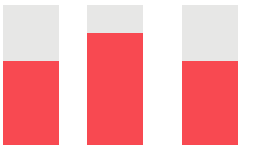
Enea ENEA

Company page
https://www.redeye.se/company/enea

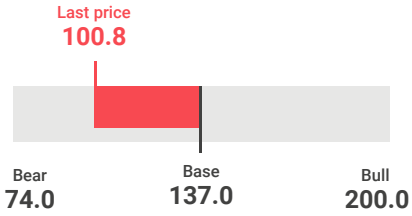
Publication date
February 28 2023

Redeye Rating

COMPANY QUALITY



FAIR VALUE RANGE



TIMELINESS



Snapshot



Marketplace	NASDAQ Stockholm
CEO	Jan Häglund
Chairman	Anders Lidbeck

Share information

Share price (SEK)	100.8
Number of shares (M)	21.9
Market cap (MSEK)	2,203
Net debt (2023E, MSEK)	58

Analyst



Jesper Von Koch
jesper.vonkoch@redeye.se

Conflict of interests

Jesper Von Koch owns shares in Enea: No

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

	2021	2022	Redeye Estimates 2023E	2024E	2025E
Revenue, MSEK	994	959	968	1,030	1,090
Growth	*6.9%*	*-3.4%*	*0.9%*	*6.4%*	*5.9%*
EBITDA	375	292	305	328	353
EBITDA margin	*37.8%*	*30.5%*	*31.5%*	*31.9%*	*32.4%*
EBIT	214	118	130	153	174
EBIT margin	*21.6%*	*12.3%*	*13.4%*	*14.9%*	*16.0%*
Pre-tax earnings	220	101	106	130	151
Net earnings	199	203	85	103	120
Net margin	*20.0%*	*21.2%*	*8.7%*	*10.0%*	*11.0%*
Dividend/Share	4.62	4.65	1.93	2.35	2.74
EPS adj.	10.26	4.94	3.87	4.70	5.47
P/E adj.	26.5	21.7	27.7	22.8	19.6
EV/S	6.1	2.5	2.5	2.2	2.0
EV/EBITDA	16.2	8.3	7.9	7.1	6.3

Last updated: 2023-02-02

Owner	Equity	Votes
Per Lindberg	34.1%	34.1%
Avanza Pension	12.2%	12.3%
Första AP-fonden	7.3%	7.4%
Handelsbanken Fonder	6.8%	6.8%
The Bank of New York Mellon SA/NV	6.3%	6.3%
C WorldWide Asset Management	4.9%	4.9%
Swedbank Robur Fonder	3.2%	3.2%
Fondita Fund Management	2.9%	2.9%
Canaccord Genuity Wealth Management	2.7%	2.7%
HSBC Bank Plc	2.7%	2.7%

Company description

Enea is one of the world's leading specialists in software for telecommunications and cybersecurity. The company's cloud-native products are used to enable and protect services for mobile subscribers, enterprise customers, and the Internet of Things. More than 3 billion people rely on Enea technologies in their daily lives. Enea's previous main competitive disadvantage was related to its large key accounts exposure (Ericsson & Nokia), but this dependency has decreased over time, following larger acquisitions. Now, these accounts only account for about 10% of revenues. Enea has transitioned to SaaS in many contracts, which has resulted in more stable recurring revenues - over 50% of total sales. The customers pay a license fee per engineer when developing its products with Enea's technology. The company also in most cases earns royalty revenue per sold unit with integrated Enea technology. Enea invests over 20% of sales in R&D within the many growth areas mentioned above.

Investment thesis

Case

Scalable software company with market-leading positions in 5G and cybersecurity

Enea has a long history of pioneering the telecom industry - at the beginning, through consulting and then through software and service offerings. Since 2016, the company has made a significant transition. Enea has moved from being a software company in Operating Systems towards mainly Nokia and Ericsson, with consulting on top, to having sold its consulting leg and replaced Operating Systems with a new forward-tilted business unit - Network Solutions. The new Enea constitutes a group of leading niche software for 5G and cybersecurity. Enea has historically strong EBIT margins exceeding 20% and healthy growth. In recent years, the organic growth in Network Solutions has slowed down, and the resulting profitability has declined. Should Enea regain its organic growth as the rollout of 5G takes off, there is ample room in the company's valuation. On top of this, Enea has since 2016 completed about one acquisition per year. Further acquisitions will further help Enea's growth journey.

Evidence

Customers moving from large one-stop-shops to best-of-breed solutions

Historically, customers have chosen large one-stop-shop providers like Ericsson. Thus, a wide product portfolio has been an important competitive edge. Now, customers are starting to choose best-of-breed solutions from various providers, which together add up to a complete offering. This is a large benefiter for the likes of Enea.

Challenge

Low organic growth in the 'growth leg' and profitability below 20% for the first time in many years

While Enea has gone through a challenging transition period, moving from Operating Systems to Network Solutions, Enea has struggled to obtain organic growth in Network Solutions. This is despite paying rather high valuation multiples for its acquisitions. Since 2016, we assess organic growth in Network Solutions to have been around 5%. The poor organic growth and a slowly growing cost base have resulted in a trailing 12-month EBIT margin not exceeding Enea's 20% target for the first time in many years.

Challenge

Uncertainty around the rollout of 5G

Enea states that it will benefit from the change from 4G to 5G - while 5G will drive new income streams, it does not expect 4G revenues to be held up by less developed markets going from 2G or 3G to 4G. Regarding 5G, Enea will participate in the 'core network' buildout, which implies the latter part of the rollout. 5G has been substantially delayed compared to industry expectations, so Enea's 5G investments have not yet paid off. If or when it does, Enea is likely to regain its former margins and growth rates.

Valuation

Depressed share price does not include any market tailwind from 5G

Enea's share price has taken a brutal hit lately, tumbling from around SEK280 to today's level around SEK100. Partly, we think this is because the company has revealed a lower share of reliable recurring revenue than investors previously anticipated. However, today's share price doesn't include any 5G-related growth. The rollout of 5G has barely started for Enea's account, as the company is mainly exposed to the 5G core network. Enea has been honest about being too early with its efforts to prepare itself for 5G exposure. However, the early attempts have been the right ones, but macroeconomic factors have delayed the rollout. As such, we think growth for Enea will catch up very fast as the rollout of 5G starts for real. Also, we see no reason to believe that Enea should have lost its strong market position. Thus, while the market's confidence in Enea has been hurt, we are still optimistic about the company's long-term prospects.

Catalyst types

Value-accretive acquisitions

Enea has a strong history of making value accretive acquisitions. Since 2016, Enea has made roughly one acquisition per year. Due to Enea's strong cash conversion, the company is likely to keep acquiring businesses to strengthen its position in 5G and cybersecurity. Acquiring new companies to attractive multiples with the following sales and cost synergies is a clear trigger for the valuation.

Major 5G contracts

Enea has won two major 5G contracts related to subscription data management, for total contract values of over EUR 40m. We believe there is a lot more to come in this space.

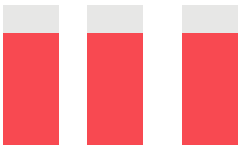
Hexatronic Group HTRO

Company page
https://www.redeye.se/company/hexatronic-group

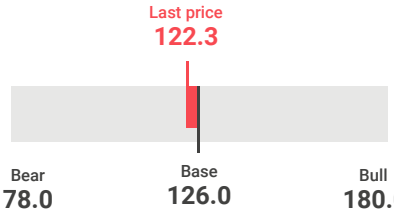
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Redeye Rating

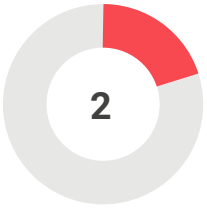
COMPANY QUALITY



FAIR VALUE RANGE

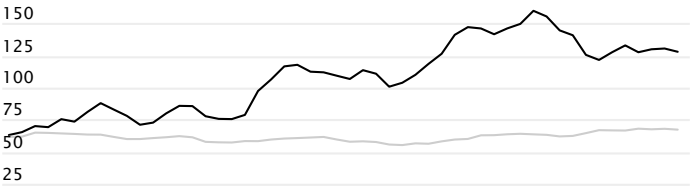


TIMELINESS

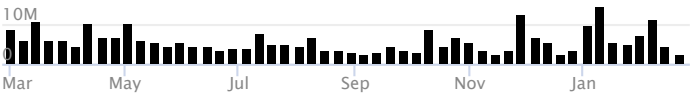


Snapshot

Hexatronic Group
OMXS30



Volume



Marketplace	NASDAQ Stockholm
CEO	Henrik Larsson Lyon
Chairman	Anders Persson

Share information

Share price (SEK)	122.3
Number of shares (M)	205.1
Market cap (MSEK)	25,079
Net debt (2023E, MSEK)	1,858

Analyst



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Conflict of interests

Fredrik Nilsson owns shares in Hexatronic Group: No

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

	2021	2022	Redeye Estimates 2023E	2024E	2025E
Revenue, MSEK	3,492	6,574	9,444	11,702	13,989
Growth	*67.8%*	*88.3%*	*43.7%*	*23.9%*	*19.5%*
EBITDA	492	1,236	1,770	2,185	2,606
EBITDA margin	*14.1%*	*18.8%*	*18.7%*	*18.7%*	*18.6%*
EBIT	358	1,028	1,522	1,916	2,312
EBIT margin	*10.3%*	*15.6%*	*16.1%*	*16.4%*	*16.5%*
Pre-tax earnings	335	960	1,466	1,868	2,264
Net earnings	255	736	1,143	1,457	1,766
Net margin	*7.3%*	*11.2%*	*12.1%*	*12.4%*	*12.6%*
Dividend/Share	0.64	1.81	2.78	3.55	4.30
EPS adj.	1.29	3.63	5.57	7.09	8.60
P/E adj.	78.2	39.0	21.8	17.1	14.1
EV/S	6.0	4.6	2.8	2.2	1.8
EV/EBITDA	42.7	24.5	15.1	11.9	9.7

Last updated: 2023-02-28

Owner	Equity	Votes
Swedbank Robur Fonder	7.4%	7.5%
AMF Pension & Fonder	6.8%	6.9%
Accendo Capital	6.3%	6.4%
Rbcb Lux Ucits Ex-Mig	6.1%	6.1%
Efg Bank / Geneva	5.9%	6.0%
Jonas Nordlund	5.9%	6.0%
Handelsbanken Fonder	4.8%	4.8%
State Street Bank And Trust co	4.7%	4.7%
Chirp AB	4.4%	4.4%
Vanguard	3.4%	3.4%

Company description

Hexatronic is a technology group which specializes in fiber communications and is listed on Large Cap Stockholm. The company supply fibre optic products and solutions and provide a complete range of passive infrastructure for telecom companies. The Group consists of ~50 companies with a total of around ~1300 employees with headquarters in Gothenburg.

Hexatronic develops and manufactures its own products and services, as well as sell and manufacture solutions based on products from leading manufacturers worldwide. The business has developed to provide more own products and complete system deliveries - this will provide higher margins and longer customer agreements. Growth has and will be driven organically and by acquisitions in its international markets.

Investment thesis

Case

Pole position in the boom for digital highways.

Considering Hexatronic's solid position in large immature markets like the US, UK, and Germany (~42x the Swedish market), we believe Hexatronic can sustain revenue growth of ~20% until 2028. To stay competitive, these countries need to improve their FTTH coverage, and regardless of investing in fixed FTTH or 5G, fiber is the foundation. Following the Covid-19 pandemic, investments have picked up significantly as the need for high-quality digital infrastructure became evident. Continuing sales growth and improving margins are the main catalysts.

Evidence

Proven track record in several major markets with its easy-deployed high-quality system solutions.

Following large investments and acquisitions in the US, UK, and Germany, the markets sales have surged and is now ~75% of group sales. Yet, these markets are only at the beginning of their fiber rollouts. Hexatronic has gained market share thanks to its high-quality and easy-deployed system solutions, especially among small- and mid-size customers with limited in-house know-how. The strong growth has been accompanied by rising margins following higher utilization rates in Hexatronic's factories.

Challenge

Boom and bust FTTH cycle put risks to the very long-term.

Hexatronic's sales from Sweden have declined by about 30% since the peak in 2017, yet about 50% of the sales are related to FTTH. While Hexatronic has other sources of sales, such as transportation networks, and submarine cables, FTTH is of major importance. Although the US, UK, and German FTTH markets likely will remain strong until 2030, at least, we believe finding new revenue streams will be crucial for the very long term. New markets and related verticals (like DCS) are possible options.

Challenge

Possible price pressure.

Hexatronic operates in fiercely competitive markets, and some of its customers are large players. Cost and price are always a delicate dimension, and there is always the risk that some of the margin improvements the company achieves simply will filter through to its customers. However, Hexatronic has an edge in its high-quality easy-deployed system solutions, especially in the current environment where shortages of technicians are slowing the rollouts.

Valuation

Base Case of SEK 126 implies ~16.5x EBITA 2023E

Our DCF model shows a Base Case fair value of SEK 126, corresponding to 2.8x sales and 16.5x EBITA 2023E. While we find 16.5x EBITA 2023E low given Hexatronic's expected profit growth, our defensive assumptions for the very long-term (2035 and beyond) reduce the valuation. Our Bull Case, expecting Hexatronic to mitigate the expected decline in FTTH post-2035, is SEK 180 – 23x EBITA 2023E.

Catalyst types

Delivering the goods

We simply expect the forthcoming financial reports from Hexatronic to confirm a positive development for the company, helping to drive the shares higher in the years ahead. It doesn't have to more spectatcular than that.

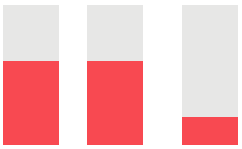
Sivers Semiconductors SIVE

Company page
https://www.redeye.se/company/sivers-semiconductors

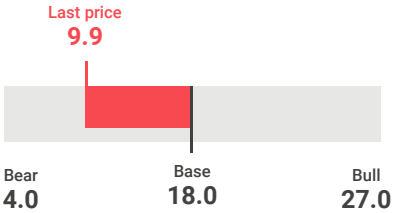
Publication date
February 28 2023

Redeye Rating

COMPANY QUALITY



FAIR VALUE RANGE

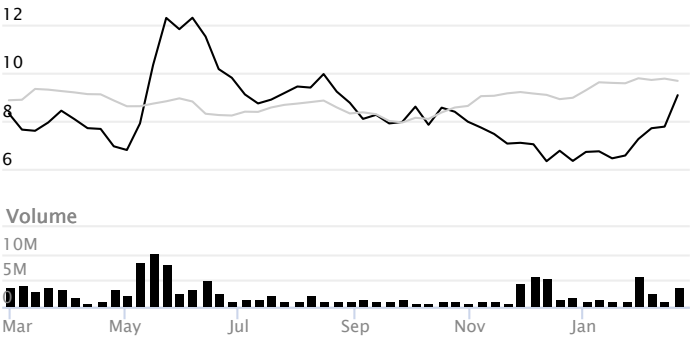


TIMELINESS



Snapshot

Sivers Semiconductors
OMXS30



Marketplace	NASDAQ Stockholm
CEO	Anders Storm
Chairman	Thomas Duffy

Share information

Share price (SEK)	9.9
Number of shares (M)	214.0
Market cap (MSEK)	2,128
Net debt (2023E, MSEK)	-71

Analyst



Jesper Von Koch
jesper.vonkoch@redeye.se

Conflict of interests

Jesper Von Koch owns shares in Sivers Semiconductors: No

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

		Redeye Estimates		
	2021	2022E	2023E	2024E
Revenue, MSEK	91	133	289	623
Growth	*-5.7%*	*46.2%*	*>100%*	*>100%*
EBITDA	-107	-74	-16	246
EBITDA margin	*Neg*	*Neg*	*Neg*	*39.5%*
EBIT	-141	-185	-96	173
EBIT margin	*Neg*	*Neg*	*Neg*	*27.7%*
Pre-tax earnings	-132	-179	-89	176
Net earnings	-134	-200	-102	169
Net margin	*Neg*	*Neg*	*Neg*	*27.2%*
Dividend/Share	0.00	0.00	0.00	0.00
EPS adj.	0.00	0.00	0.00	0.00
P/E adj.	-23.3	-5.9	-14.2	8.6
EV/S	34.2	9.6	4.8	2.1
EV/EBITDA	-28.9	-17.2	-88.6	5.4

Last updated: 2023-02-02

Owner	Equity	Votes
Erik Fällström via bolag	14.6%	14.7%
Swedbank Robur Fonder	9.1%	9.1%
Kairos Venture Investments LLC	8.6%	8.6%
Avanza Pension	5.6%	5.7%
Keith Halsey via bolag	4.9%	5.0%
Harish Krishnaswamy	3.6%	3.6%
AMF Pension & Fonder	3.4%	3.4%
Frank Lane	2.1%	2.1%
Handelsbanken Fonder	1.8%	1.9%
Nordnet Pensionsförsäkring	1.7%	1.7%

Company description

Sivers Semiconductors is a semiconductor company focused on wireless and optical communications through two segments, Wireless, and Photonics. Sivers Wireless develops radio frequency (RF) chips and antennas for advanced 5G systems – particularly millimetre wave (mmWave) – and Satellite communications (SATCOM). Sivers Photonics develops and manufactures semiconductor-based products for optical communications and sensing markets for the telecommunications (telecom), data communications (datacom) industries.

Investment thesis

Case

Exciting pipeline within Photonics with Wireless diversifying risks

Sivers has an attractive pipeline of initiatives in its Photonics segment, each of which, albeit binary in nature, may yield a 5x rise in revenue over a relatively short time frame. We are confident Sivers' customer Ayar Labs will move to volume production in 2024 with pre-series orders starting in H2'23 based on Ayar Labs' communication at Sivers CMD (2022-09-26). This alone can bring in USD145m for Sivers between 2022 and 2026 – 3x more than Sivers' trailing five-year net sales. Sivers also has three F100 customers – each of which could result in annualized revenues of SEK500m (cUSD50m). We are optimistic that the longest-serving F100 customer will start volume production in H2'24 with a pre-series phase in H2'23. Sivers has more than 40 design wins related to its Wireless segment, which diversifies the binary nature of Photonics. While we are pessimistic about Sivers 5G portfolio, we see that the SATCOM business is moving forward with pre-series orders worth USD1.4m. Sivers estimates this customer to be worth USD30m between 2022 and 2024 with a lifetime value of USD250m. We expect more design wins relating to Wireless to move to volume production by the end of 2024

Evidence

Opportunity of Photonics orders from three Fortune 100 companies

Photonics has received several pre-series orders exceeding SEK130m from an F-100 company. If the customer proceeds, it will imply very large volumes (around SEK500m annually), representing a significant growth opportunity, albeit rather binary. Moreover, Sivers Ayar Labs customers expect to ramp up Sivers products within the next three years.

Challenge

Wireless crowded by tier-2 operators

Sivers must concentrate on customers whose products succeed. Sivers, for example, announced in 2020 that it had been awarded a three-year deal worth cSEK450m. However, because Sivers' customer missed its customer window, the order was placed on indefinite hold. Currently, most of Sivers' Wireless customers are tier-two vendors such as CCS (Cambridge Communications Systems), 8Devices, Cambium (NASDAQ: CMBM), and Airvine. Furthermore, most of these are in Europe, which is lagging in mmWave deployment.

However, our channel checks reveal that Cambium has a well-positioned portfolio with a solid North American base. Furthermore, Sivers has ADTRAN (NASDAQ: ADTN) as a customer, a well-known tier-one service provider in the United States. Lastly, Sivers claims to have one tier-1 customers, which it received with its MixComm acquisition.

Challenge

Photonics not moving forward

Sivers is tight-lipped about its photonics customers, but it has revealed that three Fortune 100 organizations are actively testing its technologies. The first F100 customer has reviewed Sivers for close to four years and is being evaluated for a consumer product. The F100 customer has spent cUSD13m on engineering. We note that other companies focused on photonics have earned much more on engineering before product launch. For example, Apple has spent cUSD70m on engineering fees with Rockley Photonics which has subsequently entered bankrupcy. Thus, this customer might have to spend much more prior to being ready for volume production which would delay the volume production. The challange is thus that Investors and Sivers itself have little insight into key customers plans.

Valuation

Attractive pipeline of projects should close the valuation gap

In short, Sivers has an attractive pipeline of projects where we estimate an 80% likelihood of its unnamed SATCOM customer and Ayar Labs moving to volume production in late 2023 or 2024. Followed by its first F100 customer in H2'24. We estimate a sales CAGR 2023—2027 of 72%. The scale-up should allow for significant EBIT expansion, and we forecast Sivers reaching EBIT break-even in 2024 and EBIT-margin by 2027 of 32%. This result in a Base Case of SEK18 per share

Catalyst types

Large orders from Fortune-100 customer
Sivers Semiconductors has, as mentioned above, received substantial Photonics orders from a Fortune 100 company over the last year, and has two other F100 customers evaluating Sivers offering. If any of these customers moves forward and decides to integrate Sivers Semiconductors's components in their final product, it would entail substantial growth for Photonics segment.

Debt facility resolved
We believe Sivers debt facility which could be converted to shares at a 10% discount between Q2'23 and Q3'23 is hanging on the shares. Once abaited, we believe the pressure on the shares would disapear.

New design-wins with large telecom players
The company's focus has been to build an ecosystem of partners and are currently teamed up with two partners that are suppliers to Tier 1 telecom players – Ampleon and NXP Semiconductors. If the combined offering of Sivers Semiconductors and its partners were integrated into one the Tier 1 players' system, it would mean a real take-off in Sivers Semiconductors's sales.

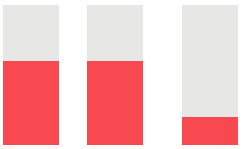
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Company page
https://www.redeye.se/company/wyld-networks

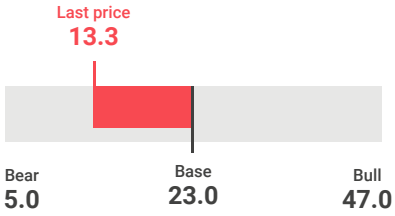
Publication date
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Redeye Rating

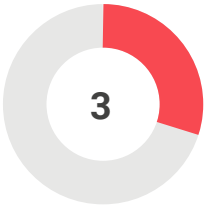
COMPANY QUALITY



FAIR VALUE RANGE

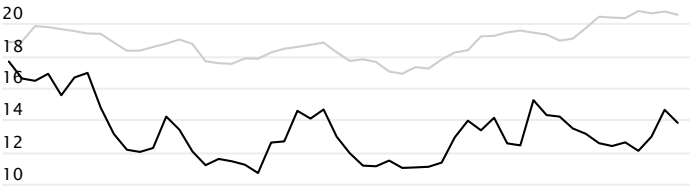


TIMELINESS



Snapshot

Wyld Networks
OMXS30





Marketplace	First North Stockholm
CEO	Alastair Williamson
Chairman	Mats L Andersson

Share information

Share price (SEK)	13.3
Number of shares (M)	13.3
Market cap (MSEK)	178
Net debt (2023E, MSEK)	-12

Analyst

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Conflict of interests

Jessica Grunewald owns shares in Wyld Networks: No

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

		Redeye Estimates		
	2021	2022E	2023E	2024E
Revenue, MSEK	2	2	37	83
Growth	*-0.1%*	*-23.1%*	*>100%*	*>100%*
EBITDA	-26	-34	-32	-15
EBITDA margin	*Neg*	*Neg*	*Neg*	*Neg*
EBIT	-26	-34	-32	-16
EBIT margin	*Neg*	*Neg*	*Neg*	*Neg*
Pre-tax earnings	-26	-34	-32	-16
Net earnings	-26	-34	-32	-12
Net margin	*Neg*	*Neg*	*Neg*	*Neg*
Dividend/Share	0.00	0.00	0.00	0.00
EPS adj.	-3.25	-3.28	-3.11	-1.59
P/E adj.	-6.4	-3.4	-3.5	-6.9
EV/S	66.9	53.7	2.8	1.4
EV/EBITDA	-6.3	-3.0	-3.2	-7.5

Last updated: 2022-09-21

Owner	Equity	Votes
Tern PLC	49.2%	49.2%
Wardhaman Family	14.3%	14.3%
Ubp Clients Assets - Sweden	11.8%	11.8%
UBS Switzerland AG	2.9%	2.9%
Philip Andersson	2.4%	2.4%
Avanza Pension	2.2%	2.2%
Martin David	1.9%	1.9%
Tuvedalen Ltd	1.9%	1.9%
Clearstream Banking S.A. W8imy	1.4%	1.4%
Alastair Williamson	1.4%	1.4%

Company description

Founded in 2016 and headquartered in Cambridge, UK, Wyld Networks is active in the IoT and technology industries. It was publicly listed in May 2021. Wyld currently has 28 employees, including consultants (a majority working in sales and engineering). The company specializes in the development of network applications. Its software is self-developed and is mainly used to collect information via sensors to satellites and to transmit this back to Earth. Wyld aims to offer low-power, low-cost global connectivity for the IoT via low-earth-orbitsatellites using the LoRa protocol. The hybrid solutions enable IoT objects to connect to both existing LPWANnetworks and LEO satellites seamlessly. Furthermore, Wyld offers flexible/simple integrations and connectivity tounconnected parts of the world, enabling customers to collect data from even the most hard-to-reach locations,bringing agriculture, maritime, environment, transportation, oil, gas and mining project data together on a straightforward platform. Its customers comprise of corporate clients operating in several sectors. Wyld operates globally and launched its services commercially in December 2022.

Investment thesis

Case

Set for High Growth

This year, Wyld is embarking on a significant growth journey with the launch of its product offering. We estimate a sales CAGR of 145% for the next five years. Thanks to an attractive underlying business model with inherent high gross margins (from both hardware sales and recurring data revenues), Wyld's business model is set to scale. We consider the market's current expectations for the company's future growth too defensive. We believe the investment offers unique exposure to the frontier techniques of LEO satellites, LoRaWAN, and the IoT. Wyld also closed the TO1 warrant subscription in Q1 2022 and the TO2 warrant subscription in Q4, securing SEK44.7m. In addition, Wyld has a third series of warrants, the Warrants of series T03, with a subscription period in 2023, ensuring financing and setting the company on the road to profitability. Assuming Wyld's launch plan stays on track, we believe its current cash position and the cash injection from the TO3 will be enough to take Wyld to positive net cash flows in 2025.

Evidence

Order Book of cSEK64m Suggests Robust Demand

Wyld has received several commercial orders, and its order book for hardware is currently at cSEK64m, originating from eleven customers. We estimate the current order book value is equivalent to around 180,000 modules. The list of customers in the pilot phase is steadily ramping up; the company currently has a list of c20 potential commercial customers (pilot customers). Wyld is also a part of a consortium with Eutelsat, TrakAssure, and Senet that combines Senet's ground LoRaWAN network with the satellite LoRaWAN networks of Wyld and Eutelsat to supply across the globe. Furthermore, Wyld has partnered with Dubai government-owned LEO satellite company Space D, exclusively providing Wyld's product offering. These orders, the list of pilot customers, and the partnerships indicate high demand, in our view.

Challenge

Building the Market

As Wyld uses frontier technology and methods, there is a proof-of-concept demand in the market. Educating the markets is both time- and resource-consuming. We thus argue that joining the LoRa alliance and the Multimodal IoT Infrastructure Consortium™ could enable Wyld to build awareness more rapidly and drive proof-of-concept via proven pilot cases with prominent partners.

Challenge

Materializing Orders to Ramp up Revenues

Wyld's revenues and profitability lie further in the future, and orders are typically set to be deployed over several years. As a result, investors will want to see both the order book ramping up quickly and orders materializing and converting into revenues. The underlying SAAS business model (for the data packages) and the project-based sales (hardware) depend entirely on the number of deployed modules to ramp up revenues. However, we view the successful pilot cases and the securing of a supply chain as indicators that Wyld can execute on its strategy.

Valuation

Base Case of SEK23

We value Wyld Networks based on three different DCF scenarios. Our fair value range is cSEK5-SEK47, with a Base Case of SEK23 per share. We use a 13% discount rate (WACC) based on Redeye's Rating model. We project its current cash position and the cash injection from the TO3 will be enough to take Wyld to positive net cash flows in 2025 in our Base and Bull cases. Our Bear Case includes an equity issuance of SEK12-SEK17m before the company reaches break-even.

Catalyst types

Sales/distribution agreements with terrestrial LoRaWAN operators
Sales/distribution agreements with terrestrial LoRaWAN operators would be a clear milestone for Wyld to achieve. We predict such agreements could generate high volume orders since the terrestrial LoRaWAN operators already have a broad customer base using the same type of sensors needed for the satellite connection for their IoT devices.

Ramp-up and conversion of the order book
The ramp-up of the order book for hardware (modules and sensors), along with the conversion of the order book into actual sales, will further prove product-market fit and underpin the growth story.

Accenture

Accenture is a leading global professional services company that helps the world's leading businesses, governments and other organizations build their digital core, optimize their operations, accelerate revenue growth and enhance citizen services—creating tangible value at speed and scale. We are a talent and innovation led company with 738,000 people serving clients in more than 120 countries. Technology is at the core of change today, and we are one of the world's leaders in helping drive that change, with strong ecosystem relationships. We combine our strength in technology with unmatched industry experience, functional expertise and global delivery capability. We are uniquely able to deliver tangible outcomes because of our broad range of services, solutions and assets across Strategy & Consulting, Technology, Operations, Industry X and Accenture Song. These capabilities, together with our culture of shared success and commitment to creating 360° value, enable us to help our clients succeed and build trusted, lasting relationships. We measure our success by the 360° value we create for our clients, each other, our shareholders, partners and communities.

Ericsson

Ericsson enables communications service providers and enterprises to capture the full value of connectivity. The company's portfolio spans the following business areas: Networks, Cloud Software and Services, Enterprise Wireless Solutions, Global Communications Platform, and Technologies and New Businesses. It is designed to help our customers go digital, increase efficiency and find new revenue streams. Ericsson's innovation investments have delivered the benefits of mobility and mobile broadband to billions of people globally. Ericsson stock is listed on Nasdaq Stockholm and on Nasdaq New York.

Huawei

Founded in 1987, Huawei is a leading global provider of information and communications technology (ICT) infrastructure and smart devices. We have approximately 195,000 employees and we operate in over 170 countries and regions, serving more than three billion people around the world.

Maven Wireless

Maven Wireless provides groundbreaking solutions in wireless coverage all over the world. We offer end-to-end digital solutions with outstanding performance. Our products contribute to public safety by ensuring wireless coverage for critical services, and are used in tunnels, on trains, metros, stadiums, buildings and more. We are passionate about making society and our customers' and end users lives better, easier and safer by securing 100% wireless coverage. Maven Wireless is listed on Nasdaq First North Growth Market with the shortname MAVEN.

BeammWave

BeammWave AB are experts in communication solutions for frequencies over 24GHz. The company is building a solution intended for 5G, in the form of a 3x3 mm radio chip with antenna and associated algorithms. The company's approach is unique and patented, with the aim of delivering a solution with higher performance at a lower cost. The company's share serie B (BEAMMW B) and options (BEAMMW TO1 B) are listed on the Nasdaq First North Growth Market in Stockholm.

Net Insight

Net Insight (Nasdaq: NETI B) provides the highest performing, most open video transport and media cloud technology for content providers as the industry standard for flexibility and service across live contribution, distribution and remote production media workflows.

For over 25 years, the world's leading content owners, broadcasters, production companies, service providers and enterprises have trusted Net Insight's Emmy® Award winning Nimbra technology to guarantee media delivery. Today, Net Insight partners with hundreds of customers in over 70 countries to ensure media flows across managed and unmanaged IP networks, and the cloud – from anywhere, to everywhere. It enables customers to get the best from any mix of virtualized, cloud and IP technology and is the only platform to support all the major industry standards, protocols and clouds.

Tre

Tre Skandinavien (Hi3G Access AB) was started in December 2000 with the vision of creating a completely new platform for mobile communication. Today, Tre owns and operates 3G, 4G and 5G mobile networks in Sweden and Denmark and consists of approximately 2,000 employees. Tre Scandinavia, which is part of the global 3 group with operations in eleven countries, is owned by Hong Kong-based CK Hutchison, which owns 60 percent of the company, and Swedish Investor AB, which owns 40 percent.

Lund University, LTH

LTH is one of the largest faculties at Lund University with nearly 10,000 students and 1,500 employees from all over the world. At the same time, we are also one of the newest additions to the 350-year history of the University, which was founded in 1961 and became part of Lund University from 1969.

At LTH, we educate people, build knowledge for the future and work hard to develop society. We create space for brilliant research and inspire creative development of technology, architecture and design.

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