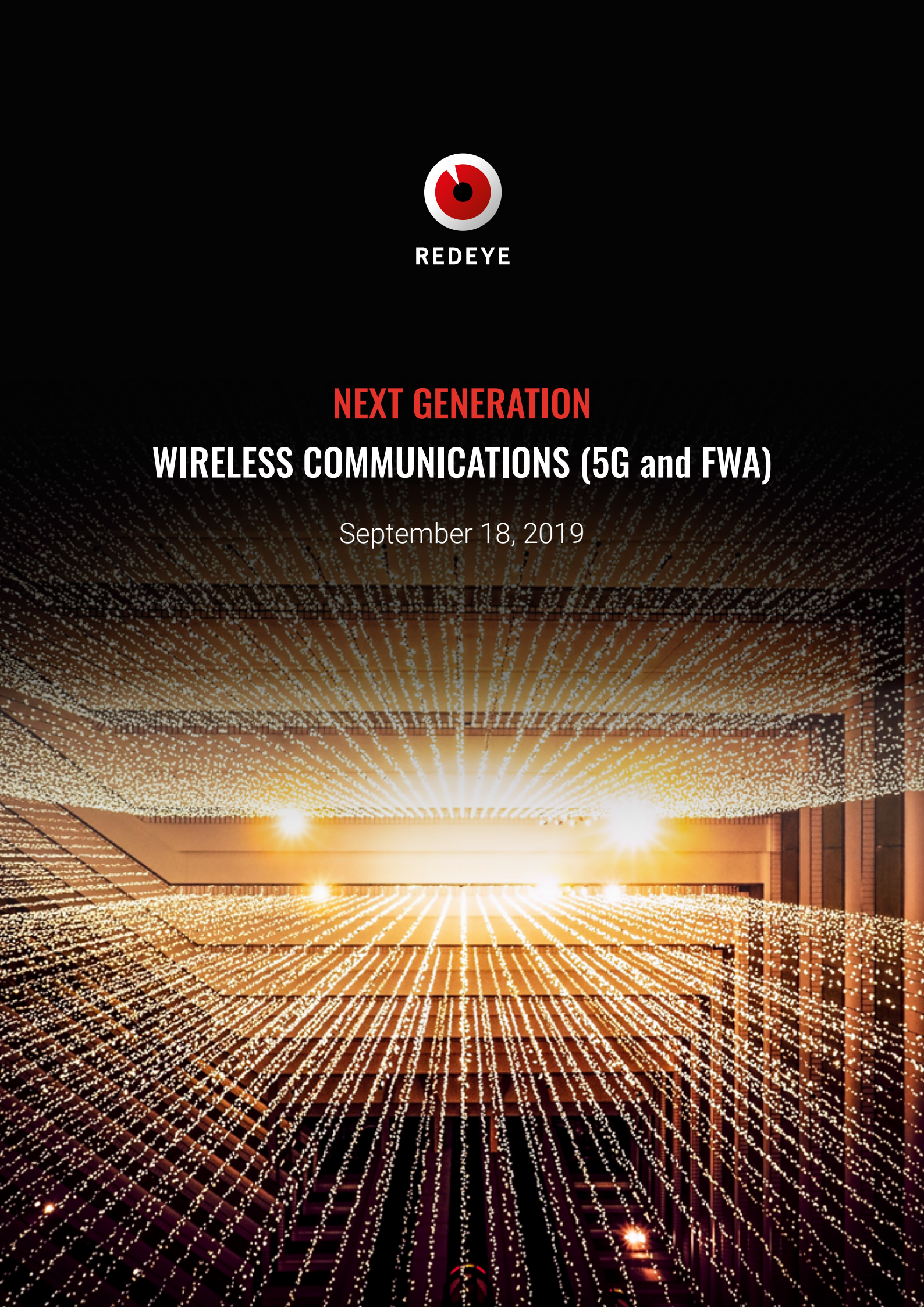
REDEYE

NEXT GENERATION
WIRELESS COMMUNICATIONS (5G and FWA)

September 18, 2019



AGENDA NEXT GENERATION WIRELESS COMMUNICATIONS (5G AND FWA) EVENT

09:00	**Introduction Redeye**
09:05	**Northstream/Accenture,** Bengt Nordström CEO
09:25	**Ericsson,** Jonas Näslund, Head of Strategy Development Networks
09:40	**Huawei,** Kenneth Fredriksen, CEO Sverige
09:55	**Hexatronic,** Magnus Angermund, CMO
10:05	**Panel discussion:** Redeye, Northstream, Ericsson, Huawei, Hexatronic
10:25	Coffee break
10:35	**Enea,** Daniel Forsgren, Senior VP Corporate Development
10:45	**Sivers IMA,** Anders Storm, CEO
10:55	**Ranplan,** Per Lindberg, Acting, CEO
11:05	**Gapwaves,** Lars-Inge Sjöqvist, CEO
11:15	**Panel discussion:** Redeye, Sivers IMA, Ranplan, Gapwaves, Enea
11:35	**Lund Tekniska Högskola,** Fredrik Tufvesson, Professor
12.00-12.45	Lunch

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 15+ 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 as a tech analyst and product manager for Introduce.se which is owned and operated by Remium. At Redeye, Erik works with Corporate Broking for the Technology team.

Håkan Östling
Head of Research & Sales

Håkan holds a Master of Science in Economics and Financial Economics at the Stockholm School of Economics. He has previously worked with equity research, corporate finance and management at Goldman Sachs, Danske Bank and Alfred Berg. At Redeye, Håkan works with management in both analysis and other corporate governance.

THE REDEYE TECHNOLOGY TEAM

Havan Hanna
Analyst

With a university background in both economics and computer technology, Havan has a an edge in the work as an analyst in Redeye's technology team. What especially intrigues Havan every day is coming up with new investment ideas that will help him generate above market returns in the long run.

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.

Kristoffer Lindström
Analyst

Kristoffer Lindström has both a BSc and an MSc in Finance. He has previously worked as a financial advisor, stockbroker and equity analyst at Swedbank. Kristoffer started to work for Redeye in early 2014, and today works as an equity analyst covering companies in the tech sector with a prime focus on Gaming and iGaming.

Viktor Westman
Analyst

Viktor read a Master's degree in Business and Economics, Finance, at Stockholm University, where he also sat his Master of Laws. Viktor previously worked at the Swedish Financial Supervisory Authority and as a writer at Redeye. He today works with equity research at Redeye and covers companies in IT, telecoms and technology.

Eddie Palmgren
Analyst

Eddie Palmgren holds a BSc in Business and Economics, Finance, from Stockholm University and has also completed an additional year at Master's Level in Taiwan. Eddie joined Redeye in 2014 and is an equity analyst in the Technology team as well as editor for Redeye's Top Picks portfolio.

Tomas Otterbeck
Analyst

Tomas Otterbeck 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. Today, Tomas works as an analyst at Redeye and covers software companies.

Dennis Berggren
Analyst

Dennis Berggren is an equity analyst within Redeye's technology team, holding a Master's degree in Economics of Innovation and Growth from KTH Royal Institute of Technology and a Bachelor's degree in Economics from Stockholm University.

Jonas Amnesten
Analyst

Jonas Amnesten is an equity analyst within Redeye's technology team, with focus on the online gambling industry. He holds a Master's degree in Finance from Stockholm University, School of Business. He has more than 6 years' experience from the online gambling industry, working in both Sweden and Malta as Business Controller within the Cherry Group.

Fredrik Nilsson
Analyst

Fredrik Nilsson 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.


Redeye
technology transactions

RECENT

	MAY 2019 Rights Issue SEK 40m	**MAY 2019** Directed Issue +Rights Issue SEK 139m	**MAY 2019** Rights Issue Co-Lead Manager SEK 135m	
	APRIL 2019 Dual Listing SEK 10m	**APRIL 2019** Rights Issue SEK 102m	**MARCH 2019** IPO SEK 80m	
JANUARY 2019 IPO Joint Bookrunner NOK 120m	**NOVEMBER 2018** Rights Issue SEK 25m	**OCTOBER 2018** Direced Issue SEK 43m	**OCTOBER 2018** Directed Issue SEK 21m	**OCTOBER 2018** Right Issue SEK 39m

2017–2018

JUNE 2018 Private Placement SEK 108m	**JUNE 2018** Rights Issue Join Lead Manager SEK 127m	**JUNE 2018** Private Placement SEK 50m	**MAY 2018** IPO SEK 30m	**APRIL 2018** Private Placement SEK 20m
FEBRUARI 2018 Private Placement SEK 20m	**NOVEMBER 2017** IPO SEK 60m	**NOVEMBER 2017** IPO SEK 180m	**NOVEMBER 2017** Private Placement EUR 9m	**OCTOBER 2017** IPO SEK 22m

2016–2017

APRIL 2017 IPO SEK 60m	**MARCH 2017** Rights Issue SEK 26m	**FEBRUARY 2017** Private Placement EUR 7m	**DECEMBER 2016** Rights Issue SEK 107m	**DECEMBER 2016** Rights Issue SEK 24m
OCTOBER 2016 Directed Issue SEK 49m	**AUGUST 2016** Private Placement SEK 60m	**JUNE 2015** Directed Issue SEK 11m	**JUNE 2015** Rights Issue SEK 62m	**APRIL 2016** Directed Issue SEK 11m

5G Report 2019

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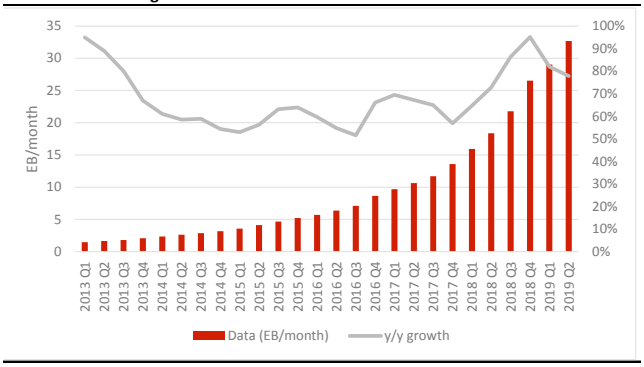
Increased data consumption

The mobile data traffic continues to grow at an astonishing pace. According to Ericsson's mobility report from June 2019, the data traffic increased by 82% between Q1'2018 and Q1'2019. The traffic is further expected to continue growing at a rapid pace (CAGR of 30% until 2024) following higher consumption of data-heavy content. The increased mobile data traffic brings a vital need for a cellular network supporting greater data rates, efficiency and capacity. The latter explains why improved capacity is expected to be one of 5G's main differentiators compared to 4G LTE.

Mobile data traffic growth



Source: Ericsson Mobility Report June 2019

Improved technologies and use of mmWaves opens up for increased data rates

While LTE can offer download speeds in hundreds of Mbps, 5G is expected to bring peak data rates in Gbps. It will be enabled by increased use of high capacity spectrums, and where ultra-high-speed will be achieved by utilizing millimeter wave (mmWave) frequency bands. New innovative mmWave solutions are based on use of radio waves with millimeter long wavelength, which offers higher throughput (speed) through increased bandwidth at the expense of weaker coverage as the shorter signals cannot travel as far. The latter highlights the importance of a successful network densification by improving capacity and coverage by building more cell sites in a denser setup. The development is further supported by the introduction of enhanced signal techniques such as beamforming and MIMO.

It is essential to point out far from all 5G connections will be based on mmWave. In brief, the specification is divided into two frequency ranges, FR 1 (sub-6GHz) and Fr 2 (>24 GHz). Sub-1GHz will be important for widespread coverage and support IoT services while 1-6GHz offers a mix of coverage and capacity advantages.

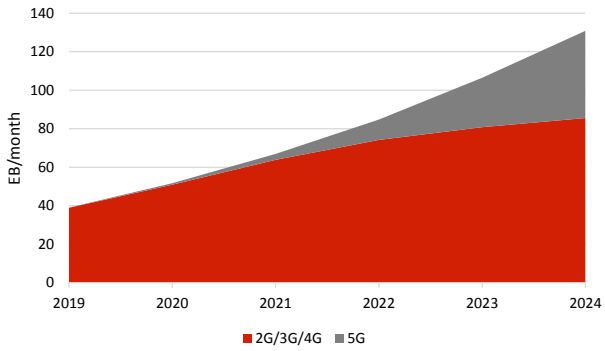
As 5G is expected to bring improved data transfer speeds, it is merely not interesting concerning enhanced mobile broadband (eMBB) but also fixed wireless access (FWA) uses. FWA can complement or substitute fiber to the home connections where the physical last-mile cable is replaced with wireless connectivity. It should, however, be stressed that 5G and wireline are not mutually exclusive, and 5G should not be regarded as a threat for fiber optic companies as new deployments should impose a great need for fiber to connect cell sites. The Fiber Broadband Association, for example, forecast that 5G will require about 16x as much fiber compared to 4G , while 4G requires 25x more fiber than 3G.

New emerging technologies and use cases

In brief, there are 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 an improved cellular network standard are not limited to the telecommunication industry, and expands far beyond just 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. Examples include autonomous driving, massive machine-to-machine connections (IoT), industrial automation (industry 4.0), and AR/VR. Hence, it is clear that the development and introduction of the next-gen wireless network standard is crucial for numerous markets.

[1] Ericsson Mobility Report, June 2019.

Mobile network traffic by network standard (Exabytes per month)



Source: Ericsson Mobility Report June 2019

Until today, almost 300 operators have demonstrated, deployed, testing/trialing or are licensed to conduct field trials of mobile 5G or FWA, indicating that the rollout is underway. According to GSA , there are 56 operators in 32 countries that have announced 5G deployments within their live networks while 39 have announced 5G (3GPP) service launches. About 25% are FWA-only services, 40% mobile-only services and the remaining 35% are both mobile and FWA.

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 are so-called non-standalone (NSA), which is the early version of 5G, where the new deployments are making use of existing 4G LTE infrastructure with enhanced mobile broadband (eMBB) as the primary use case.

The worldwide commercial launch is expected first somewhere around 2020, and the largest deployments are estimated to occur beyond 2023. Ericsson expects that about 35% of the global data traffic will be generated in 5G networks by 2024, while the number of 5G connections is expected to account for approximately 15% of the total connections by 2025 (excluding cellular IoT) according to GSMA .

Rollouts of new mobile communication networks require enormous investments, and operators are expected to invest about $245bn in 5G related capex between 2018 and 2020 according to GSMA. Apart from large investments in network equipment, operators are also spending substantial amounts on spectrum licenses.

Introduction of the first 5G devices

Another essential progress is the development and launch of "5G ready" devices, which occurred during the first half of 2019. Several smartphone manufacturers have now launched their first 5G phones, meaning that consumers finally are able to experience and use 5G networks. Actors such as Samsung, Huawei, Motorola, Xiaomi, LG and OPPO are examples of companies that have launched 5G supported phones, where Samsung is one of the few actors that currently are shipping both devices with sub-6 GHz and mmWave support. It, however, only regards a few number of phones, and Apple is, for example, expected to launch its first 5G phone in 2020. Devices are furthermore not only about smartphones, but also equipment such as CPEs (receiving unit in FWA networks) and hotspots. According to GSA, there were 100 announced 5G devices by the first week of August, of which 26 phones, 26 CPE devices and eight hotspots.

Regional status

The US, South Korea, Japan, and China are the countries generally regarded to be in the forefront. The four largest carriers in the US (AT&T, Sprint, T-Mobile and Verizon) have now switched on 5G in various setups. The same holds for South Korea, where the three largest operators (SK Telecom, KT and LG Uplus) gained 260,000 subscribers during the first month after launching 5G services in April 2019, and by the middle by June, there was over one million 5G subscribers in the country.

The largest wireless carriers in Japan, NTT DOCOMO and KDDI, are planning to launch pre-commercial 5G networks in September 2019 while official launches planned in the first half of 2020. SoftBank and Rakuten are reportedly also aiming for commercial launches in 2020.

China is expected to start a national rollout of 5G networks in October 2019, with Shanghai as the first city. The wireless carriers China Unicom, China Mobile and China Telecom are reportedly coordinating their efforts to deploy commercial 5G in 40 cities across the country.

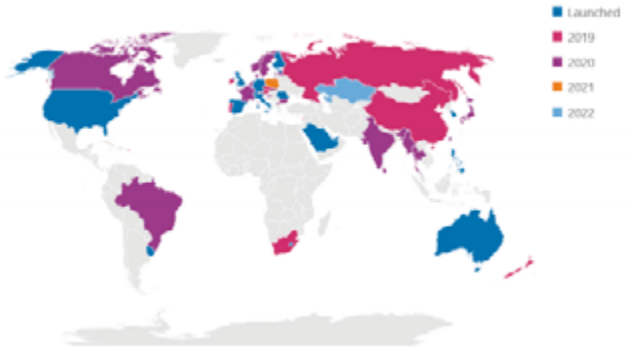
According to the European 5G Observatory, 153 5G trials had been conducted by the end of June 2019 , reflecting that there also is much going on in Europe. Operators have, however, not announced as aggressive 5G plans as seen in other parts of the world. There have been several launches of live 5G networks in a number countries (Austria, Germany, Italy, Ireland, Monaco, Romania, Switzerland, Spain, and the

[2] Fiber Broadband Association 2017 Annual Report
[3] GSA, Evolution from LTE to 5G: Global Market Status, August 2019
[4] GSMA, The Mobile Economy 2019
[5] GSA – 5G Device Ecosystem, August 2019
[6] https://interestingengineering.com/china-begins-5g-national-rollout-in-october-shanghai-becomes-first-city-with-a-commercial-5g-network
[7] European 5G Observatory, Quarterly Report 4, July 2019

UK) with most of the launches being limited to few cities. There are, however, several countries where spectrum auctions have not been completed yet. By the end of June, about 14% of the pioneer spectrum (700 MHz, 3.4-3.8 GHz, and 26 GHz) had been assigned in EU countries.

Concerning the Nordics, Finland was the first country with a limited launch in 2018 by Elisa, and Elisa is now running live networks in several cities in Finland. Regarding Sweden, Denmark, and Norway, there have been some tests and trials, but the first larger commercial launches are planned to commence in 2020.

Earliest expected 5G commercial launch dates (incl. Limited launches)



Source: GSA Evolution of LTE to 5G, August 2019

What to follow going forward?

Governments and regulators play a crucial role in harmonizing spectrum, i.e., pursuing a uniform allocation of frequency bands across regions. In its latest spectrum report (August 2019), GSA concluded that 71 countries currently are actively involved in considering suitable 5G spectrum.
An important event for the development going forward is WRC-19 (World Radiocommunication Conference) in October-November 2019, where decisions regarding the identification of mmWave spectrum for mobile networks are expected. Some key bands are 26 GHz, 40 GHz, 50 GHz, and 66 GHz, as recommended by GSMA.

5G – is it here yet?

The market is currently taking off. After a period of intensive trials and test deployments, the launch of 5G supported smartphones has opened up for commercial launches in several countries. Still, initial deployments are utilizing existing 4G LTE infrastructure while the stand-alone high-speed and low-latency promising standard (5G SA) is expected to become available first during 2020. The current 5G networks reportedly show varying performance in early tests where some deliver very high data transfer speeds while also experiencing coverage problems. The largest deployments are expected beyond 2022 but it is yet unsure how great the deployments eventually will be. It is, however, clear that the emergence of the next-gen cellular network 5G will offer significant growth opportunities for companies in the forefront.

Value chain

5G should come to impact a great number of industries dramatically, but we have pictured the sector most simplistically by technology/component manufacturers, system equipment manufacturers, mobile carriers and device manufacturers.

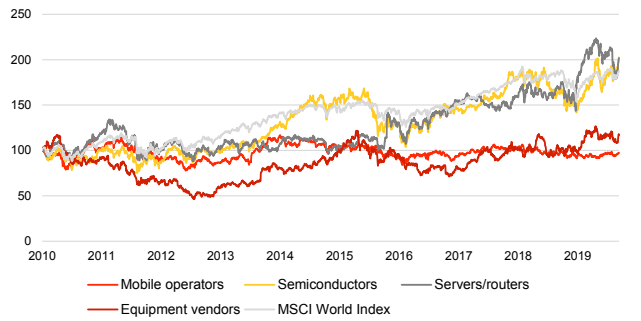
Although depending on company and models, the network operators are usually the actors facing end customers (enterprises and consumers). In addition, there are a number of actors that also supply products in several parts of the value chain, such as Huawei and Samsung which also are present within the device group, providing both infrastructure equipment and devices such as smartphones and CPEs. Besides, there are numerous other technology companies that play an important role the emergence of the next-gen cellular standard, such as the American semiconductor giant Qualcomm, exemplified by its development of 5G supported chipsets and modems for smartphones, which have been crucial to spur commercial deployments during 2019.

Varying share performance

Over the last nine years, there has been a great variance in share performance between the industry subgroups. The largest public telecom equipment vendors (infrastructure) and global mobile operators have been significantly outperformed by semiconductor companies (including the likes of Qualcomm, MediaTek and NXP), servers/routers/switches (Cisco, Juniper, F5, etc.) as well as the broad MSCI World Index.

An investment in the constructed global mobile operator basket would have yielded a negative return of about 3% since the start of 2010 whereas an investment in a basket consisting of the largest public equipment vendors would have resulted in a 17% gain over the nine-year period with the increases fully explained by stronger performance since the end of 2016.

Share price development since 2010



Source: Bloomberg. Redeye Research

Valuation metrics

The median Nordic/American operator is trading at much higher multiples compared to the median equipment vendor (infrastructure) as reflected by the 19.1x vs 14.4x EV/EBIT'19e, where the latter further is skewed by ZTE's multiples. The average equipment vendor are also expected to show greater EBIT improvements over the two coming years, and the spread between the EV/EBIT multiples thus increases in 2020. Operators are at the same time exhibiting stronger operating margins and further offers greater implied average dividend yields (4.5% vs. 2.8%).

Looking at the group of Redeye companies with exposure to next-gen wireless trends, the common factor is the significant expected growth rates, reflected by the median expected sales CAGR of 40.1% between 2018 and 2020e. Half of the companies in the subset is currently experiencing losses, where higher levels of profitability are expected in a number of years from now as reflected by the expected negative EBIT 19-20e.

		Enterprise Value	EV/Sales		EV/EBIT		Sales CAGR	EBIT-margin		
Company	**Currency**	**mn.**	**19E**	**20E**	**19E**	**20E**	**2018-2020E**	**18**	**19E**	**20E**
Equipment vendors										
ERICSSON	USD	24159	1.0	1.0	11.9	9.6	3.8%	5%	9%	11%
NOKIA	USD	28094	1.1	1.0	14.4	9.1	1.5%	5%	8%	12%
ZTE CORP	USD	22331	1.6	1.4	28.3	20.1	2.0%	2%	6%	7%
Average	**USD**	**24861**	**1.3**	**1.2**	**18.2**	**12.9**	**2.4%**	**4%**	**7%**	**10%**
Median	**USD**	**24159**	**1.1**	**1.0**	**14.4**	**9.6**	**2.0%**	**5%**	**8%**	**11%**
Mobile Operators										
TELIA	USD	29310	3.3	3.2	20.0	19.0	3.2%	16%	17%	17%
TELE2	USD	12679	4.3	4.3	23.5	20.5	9.6%	17%	18%	21%
TELENOR	USD	39074	3.1	3.0	13.0	12.4	0.9%	20%	24%	24%
AT&T	USD	478948	2.6	2.6	15.1	14.2	4.5%	17%	17%	18%
VERIZON	USD	382879	2.9	2.9	12.3	12.0	1.8%	24%	24%	24%
T-MOBILE	USD	109205	2.4	2.3	19.1	15.9	5.3%	12%	13%	14%
SPRINT	USD	69102	2.1	2.1	23.9	30.0	-0.5%	11%	10%	7%
Average	**USD**	**160171**	**3.0**	**2.9**	**18.1**	**17.7**	**3.5%**	**17%**	**18%**	**18%**
Median	**USD**	**69102**	**2.9**	**2.9**	**19.1**	**15.9**	**3.2%**	**17%**	**17%**	**18%**
Redeye Companies										
HEXATRONIC	SEK	2419	1.3	1.1	20.2	13.8	20.9%	6%	6%	8%
GAPWAVES	SEK	720	48.0	22.5	-20.6	-25.7	228.8%	neg.	neg.	neg.
SIVERS IMA HOLDING	SEK	896	7.2	3.8	-12.3	-169.0	53.5%	neg.	neg.	neg.
RANPLAN GROUP	SEK	274	4.9	3.4	-54.7	34.2	101.4%	neg.	neg.	10%
ENEA	SEK	3439	3.3	3.2	12.8	12.8	22.7%	23%	26%	25%
CLAVISTER	SEK	659	4.9	3.3	-10.0	-50.7	26.6%	neg.	neg.	neg.
Average	**SEK**	**1401**	**11.6**	**6.2**	**-10.8**	**-30.8**	**75.7%**	**5%**	**5%**	**7%**
Median	**SEK**	**808**	**4.9**	**3.3**	**-11.1**	**-6.4**	**40.1%**	**15%**	**16%**	**10%**

Source: Bloomberg, Redeye Research

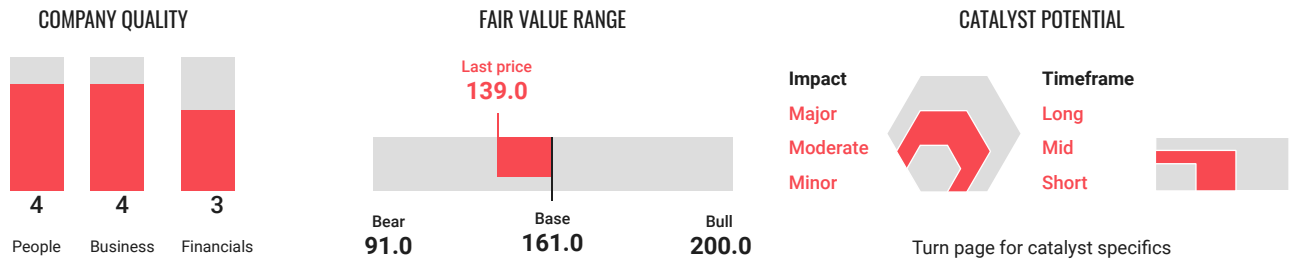
Covered Companies

Enea ENEA

Company page

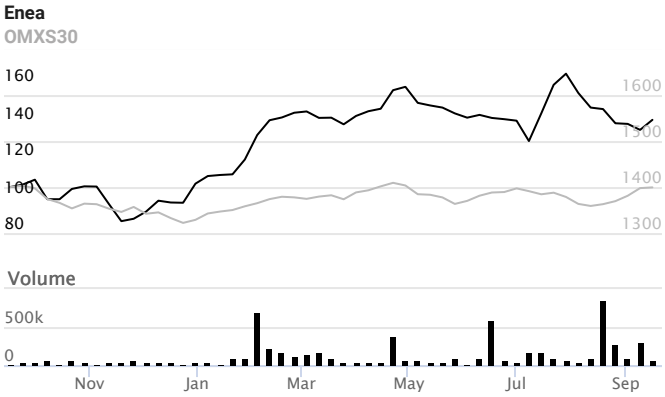
https://www.redeye.se/company/enea

Redeye Rating



Turn page for catalyst specifics

Snapshot



Marketplace	NASDAQ Stockholm
CEO	Jan Häglund
Chairman	Anders Lidbeck

Share information

Share price (SEK)	140.0
Number of shares (M)	21.6
Market cap (MSEK)	3,026
Net debt (MSEK)	259

Analyst

Viktor Westman
viktor.westman@redeye.se

Conflict of interests

Viktor Westman owns shares in Enea: Yes

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

Financials

			Redeye Estimates		
	2017	2018	2019E	2020E	2021E
Revenue, MSEK	589	842	1,030	1,081	1,170
Growth	*17.6%*	*42.9%*	*22.3%*	*5.0%*	*8.2%*
EBITDA	126	229	334	348	384
EBITDA margin	*21.5%*	*27.2%*	*32.4%*	*32.2%*	*32.8%*
EBIT	104	189	274	274	308
EBIT margin	*17.6%*	*22.4%*	*26.6%*	*25.4%*	*26.4%*
Pre-tax earnings	104	161	244	268	302
Net earnings	88	142	198	215	242
Net margin	*15.0%*	*16.8%*	*19.3%*	*19.8%*	*20.7%*
Dividend/Share	0.00	0.00	0.00	0.00	3.40
EPS adj.	4.57	7.32	9.32	10.08	11.35
P/E adj.	17.8	13.7	15.0	13.9	12.3
EV/S	2.3	3.0	3.1	2.8	2.4
EV/EBITDA	10.9	10.9	9.7	8.7	7.2

Last updated: 2019-09-19

Owner	Equity	Votes
Per Lindberg	34.1%	34.1%
Avanza Pension	11.4%	11.4%
Swedbank Robur Fonder	9.3%	9.3%
Handelsbanken Fonder	6.5%	6.5%
C WorldWide Asset Management	4.4%	4.4%
JP Morgan Bank Luxembourg S.A.	4.4%	4.4%
Canaccord Genuity Wealth Management	2.7%	2.7%
HSBC Bank Plc	2.7%	2.7%
Skandia Fonder	1.7%	1.7%
Enea AB	1.5%	1.5%

Company description

Enea is a global, leading software company within realtime operating systems (RTOS), deep packet inspection (DPI) and mobile video optimization. Enea has a long experience in telecom. Over 5 billion calls per day are depending on Enea's technology since it is integrated in more than half of all base stations across the World and over three thirds of the 4G base stations. Enea's main competitive disadvantage is related to its large key accounts exposure (~25% Ericsson & Nokia), but this dependency has decreased over time, following larger acqusitions. Enea has completed a business model transition to SaaS, which has resulted in more stable recurring revenues - about 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 many future growth areas such as NFV, open source, DPI, mobile video and subscriber data management.

Investment case

- New diversified customer base outgrowing decline of key accounts
- The stock market is underestimating the acquisitions
- Earnings releases and further M&A drives the share price

New diversified customer base outgrowing decline of **key accounts**

Enea's operating profit has increased by an average of around 18 percent annually since 2013, even though revenue from Ericsson and Nokia has decreased from 60 percent to about 20-25 percent. We argue that Qosmos, Openwave, Atos and the smaller customers will offset the decline in Key Accounts but that the stock market has not yet grasped this dynamic. Worldwide Software Sales, where most of the acquired, fast-growing businesses are included, is already more than twice the size of Key Accounts. One relevant counter argument is that the acquisitions were made to conceal a steeper decline in Ericsson revenues, but this does not take away from the fact that the acquired companies are of high quality. They represent new examples of the management's long and successful track record in building billion-kronor software companies through buy-ups. It is particularly worth noting that Enea people ran Telelogic, which was bought by IBM for SEK 5.2 billion.

The stock market is underestimating the acquisitions

Following , the acquisitions Enea is a brand new company. The acquisitions follow a clear agenda to grow upwards in the software stack, positioning Enea within virtualization and get the company closer to the end customers. Common to the Qosmos, Atos and Openwave acquisitions is that they are all critical components of the telecom networks of the future. Atos provides application software for policy and control in handling subscriber information, which is essential for the operators when it comes to building new business models and create tailor-made services. Openwave's technology helps telecom operators handle the explosive growth in mobile video. 90% of the 5G traffic will be related to video. Qosmos conducts internet traffic flow analysis/deep packet inspection (DPI), which is predicted to grow by around 20 percent annually. OEMs previously conducted DPI in house, but as the number of protocols and applications continuously expands it is becoming increasingly difficult to keep pace with developments. Qosmos was early to identify this trend and was a pioneer in carving out its own niche in embedded DPI aimed at OEM customers. Qosmos has maintained complete focus on this core competence and now has 75 percent of a rapidly growing niche, which is gradually biting from today's tiny total market penetration levels.

Earnings releases and further M&A drives the share price

We assume the share will be driven by more value-creating acquisitions and, above all, changed perception when it becomes obvious to the stock market in conjunction with the interim report that the acquisitions and the smaller customers are outgrowing the decline in key account sales.

Catalyst types

The market discovers the growth in qosmos, openwave etc.
As Qosmos, Openwave och Worldwide Software Sales continue to grow larger it should at some point be obvious for the stock market that the growth in the new areas and the smaller customers together can offset and outgrow the declining Key Accounts business.

Personal notes

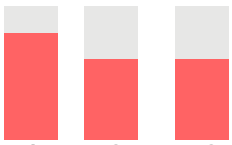
Ericsson ERIC B

Company page

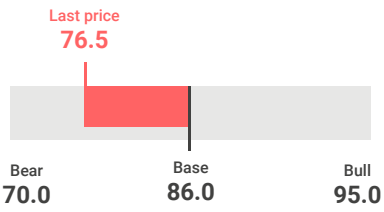
https://www.redeye.se/company/ericsson

Redeye Rating

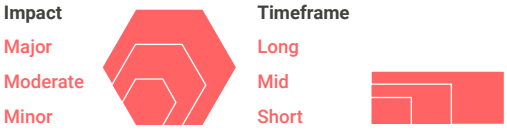
COMPANY QUALITY



FAIR VALUE RANGE



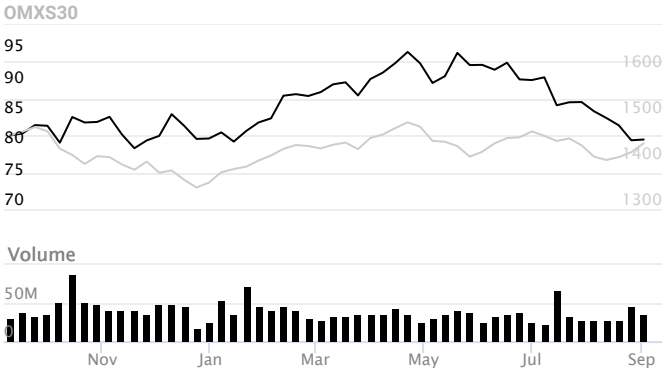
CATALYST POTENTIAL



Turn page for catalyst specifics

Snapshot

Ericsson
OMXS30



Marketplace	NASDAQ Stockholm
CEO	Börje Ekholm
Chairman	Ronnie Leten

Share information

Share price (SEK)	76.5
Number of shares (M)	3,334.2
Market cap (MSEK)	255,063
Net debt (MSEK)	-28,279

Analyst

Greger Johansson
greger.johansson@redeye.se

Conflict of interests

Greger Johansson owns shares in Ericsson: No

Financials

	2017	2018	Redeye Estimates 2019E	2020E	2021E
Revenue, MSEK	205,378	210,838	222,800	227,879	232,571
Growth	*-6.8%*	*2.7%*	*5.7%*	*2.3%*	*2.1%*
EBITDA	-6,851	9,560	25,295	29,912	32,602
EBITDA margin	*Neg*	*4.5%*	*11.4%*	*13.1%*	*14.0%*
EBIT	-34,743	1,242	18,887	24,462	27,544
EBIT margin	*Neg*	*0.6%*	*8.5%*	*10.7%*	*11.8%*
Pre-tax earnings	-35,958	-1,463	17,441	23,662	27,044
Net earnings	-32,576	-6,530	10,574	16,450	19,307
Net margin	*Neg*	*Neg*	*4.8%*	*7.2%*	*8.3%*
Dividend/Share	1.00	1.00	1.25	1.50	2.00
EPS adj.	2.22	1.39	3.93	5.48	6.28
P/E adj.	24.5	55.0	19.9	14.2	12.4
EV/S	0.8	1.1	1.0	0.9	0.8
EV/EBITDA	-24.5	25.2	9.0	7.1	6.0

Last updated: 2019-09-09

Owner	Equity	Votes
Deutsche Bank Trust co America	9.7%	5.7%
Cevian Capital	8.4%	5.0%
Investor	7.2%	22.5%
State Street Bank And Trust co	7.0%	4.1%
PRIMECAP	3.5%	2.0%
UBS AG London Branch	3.5%	2.1%
Swedbank Robur Fonder	3.3%	2.0%
Fidelity Investments (FMR)	3.2%	1.9%
Nqi Jpmorgan Prime Nominees LTD	3.2%	1.9%
Vanguard	3.0%	1.9%

Company description

Ericsson, with a history of over 140 years and operations in 180 countries, is one of three large global players in the mobile networks market. Ericsson's main business areas are Networks (mainly mobile), Digital Services, Managed Services and Emerging Business/Other, with the first two areas responsible for the majority of revenues. Ericsson had a turnover in 2018 of roughly SEK 211 billion and an adjusted EBIT margin of around 6%.

Ericsson has faced a tough market in recent years, with negative growth triggering major cost cutting, divestment of Sony Mobile and EMP/modems, and changes in senior management. This has also activated investments in new growth areas such as Cloud Services, IP Networks, TV/Media, OSS/BSS and Industry/Society. However, these new areas have not performed well. Moreover, in 2018 the mobile network market has started to turn around.

Ericsson is headquartered in Kista (Stockholm), Sweden, and has roughly 95359 employees. The company's share is listed on NASDAQ.

Investment case

- Ericsson has under delivered during 2016/2017 and the market has been in decline during these years. However with the strong reports in most quarters in 2018 and in 2019 and a turning market, the expectations on the company have increased somewhat
- Ericsson is still top 3 in the world (in telecommunication equipment) with a solid customer base
- We expect more effect from the cost cutting program announced and this will increase the margin going forward. On the other hand, the valuation of EV/S 1.0x indicates that the valuation is rather decent
- Our DCF-model generates an upside and our fair value of SEK 86 is higher than the share price is trading

A recovering company in a tough market…
Ericsson has faced a very tough market in the past couple of years, with its key customers (operators) holding back their investment due to slow growth and sliding margins. The markets for mobile communication and mobile networks have contracted in recent years, while Ericsson still believed there would be a lot of growth. The company started several new initiatives (Cloud Services, Media etc.) and was very late in adjusting its organization. We are now seeing (from 2018) that the company is starting to achieve a reasonable cost base. This should take the company back to a more realistic EBIT margin of 9–10% during 2019.

Ericsson has also a fairly new CEO, Börje Ekholm, and the new major shareholder, Christer Gardell, who have taken a new grip on the company and started to execute the new strategy. In additon, the CEO has limited experience of leading a large global company in crisis but he has performed well during 2018/2019.

…but still top 3 in the world…
Ericsson is still one of the world's three largest mobile network players, with a market share of around 30%. In addition, the other two players, Chinese Huawei and Finnish/French Nokia/Alcatel each have market shares of around 30-35% but have their own problems. Huawei is still facing difficulties getting into America, Japan and some other markets, while Nokia Alcatel is in now emerging from the merger.
The market going forward will open up the tightly closed traditional telecom sector with new technologies, such as 5G, SDN/NFV and Cloud. This means that players like IBM, Intel, Juniper, Cisco and HP may now have a shot at this huge potential. Ericsson has a challenge to hinder these new competitors while still investing wisely and utilizing its core expertise. Ericsson's edge is in the radio interface and Systems which, together with an offer in Services (recurring and rather stable revenues but slightly lower operating margin and one offs), should be enough to deliver a much better margin going forward.

…and higher expectations but some growth lights
After a rough 2016 and 2017, the share has tumbled and confidence in both the management team and the Ericsson share have been low. However, after the good reports during 2018/2019, the valuation (P/S multiple around 1.0x) indicates that the confidence in the company is back. If we examine estimates for a few years forward, we believe the market now is expecting fairly much. Although we do not expect any significant growth going forward, we still estimate that Ericsson can return to a 10-11% operating margin (in 2020-2021) and a decent dividend. In addition, Ericsson most imortant segment, Networks, showed growth in Q1'18-Q2'19 which was very positive.

Bear Points:

There are naturally some major risks in this investerment scenario, such as:

- continued weak/low revenue growth
- cost cutting taking too long or even more cost cutting has to be made
- intense competition (Huawei, Nokia, Samsung, ZTE)

Catalyst types

Large contracts/business deals
Deals in billion USD for 4G, 5G, services etc.

Cutting cost/improved operational efficiencies
Ericsson cost cutting program proceed better than expected and/or they announce further cost cutting

Penelty from sec/jod
A potential billion USD fine in 2019 or 2020

Growth long term, returns in the telecom industry
The underlying growth returns in the industry. Some growth has returned during 2018/2019.

Cisco buy ericsson
This would be a fairly good match between the two companies

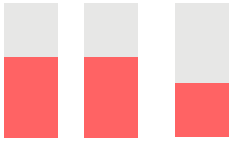
Gapwaves GAPW B

Company page

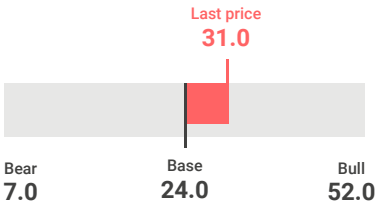
https://www.redeye.se/company/gapwaves

Redeye Rating

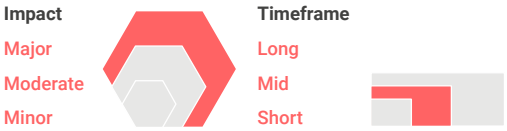
COMPANY QUALITY



FAIR VALUE RANGE

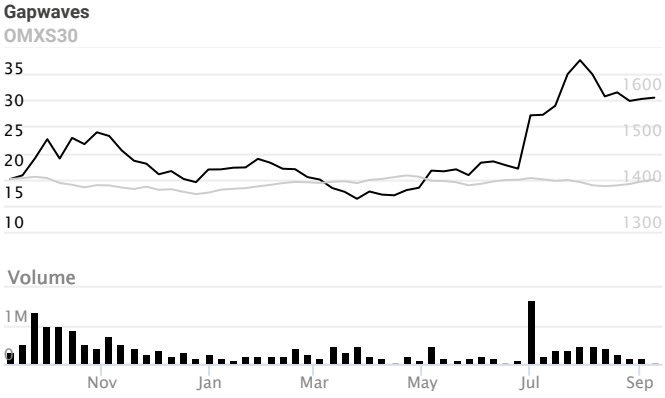


CATALYST POTENTIAL



Turn page for catalyst specifics

Snapshot



Marketplace	First North Stockholm
CEO	Lars-Inge Sjöqvist
Chairman	Jonas Ehinger

Share information

Share price (SEK)	31.0
Number of shares (M)	24.4
Market cap (MSEK)	765
Net debt (MSEK)	-27

Analyst

Dennis Berggren
dennis.berggren@redeye.se

Conflict of interests

Dennis Berggren owns shares in Gapwaves: No

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

Financials

	2017	2018	Redeye Estimates 2019E	2020E	2021E
Revenue, MSEK	1	2	15	32	69
Growth	*-43.4%*	*>100%*	*>100%*	*>100%*	*>100%*
EBITDA	-24	-35	-30	-22	-13
EBITDA margin	*Neg*	*Neg*	*Neg*	*Neg*	*Neg*
EBIT	-27	-44	-35	-28	-18
EBIT margin	*Neg*	*Neg*	*Neg*	*Neg*	*Neg*
Pre-tax earnings	-27	-44	-35	-28	-18
Net earnings	-27	-44	-35	-28	-18
Net margin	*Neg*	*Neg*	*Neg*	*Neg*	*Neg*
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	-1.53	-1.80	-1.44	-1.15	-0.75
P/E adj.	-26.3	-9.8	-20.5	-25.7	-39.2
EV/S	805.9	159.8	45.7	22.6	10.9
EV/EBITDA	-29.5	-10.3	-23.3	-32.5	-56.9

Last updated: 2019-08-19

Owner	Equity	Votes
Cécile Schilliger	24.6%	56.6%
Avanza Pension	4.5%	1.1%
Lars-Inge Sjöqvist	4.3%	8.7%
Leif Hagne	3.3%	0.8%
Nordnet Pensionsförsäkring	2.7%	0.7%
Jian Yang	2.5%	6.1%
Bright Peter Leo Ebenezer	1.9%	0.5%
BNP Paribas Sec Serv Luxembourg	1.9%	0.5%
Alfred Berg Fonder	1.9%	0.5%
Familjerna Ljungberg & Holmström	1.3%	0.3%

Company description

Gapwaves offers wireless communication solutions based on the GAP waveguide technology, which stems from the research of the late founder Per-Simon Kildal. The company's great potential is found in the millimeter wave antennas that can be applied in expansions of current radio link networks, automotive radars and eventually 5G deployments.

Investment case

- Technology improving power efficiency: Gapwaves potential is found in its waveguide technology that opens up for antennas that are 4-10 times as power efficient as alternative technology.
- 5G brings significant opportunities: We believe that the greatest financial potential arises with upcoming 5G deployments, which will require millions of efficient antennas.
- Technology moves rapidly: the company has to illustrate that there truly is a commercial interest for its solution and show that the company's active antenna solution will solve genuine needs that alternative technologies does not solve.

Technology improving power efficiency. Gapwaves has a first-mover advantage in its antennas that are 4-10x more power efficient in an active setting than other existing technology (depending on configuration and setup). The antenna is expected to incur substantial advantages in communication and automotive radar applications by improving power efficiency and a possibility to produce at a lower cost.

Supportive analysis: The efficiency of the company's solution is shown in a case study where Gapwaves antenna is compared to current state-of-the-art technology. The simulations show that Gapwaves solution incurs higher output power of the transmitter, due to better cooling, and higher antenna directivity (the concentrated radiation in a single direction) while reducing the power losses. These three factors finally result in a higher equivalent isotropic radiated power (EIRP), a measure undertaken to compare the concentrated signal output power, than the state-of-the-art solution. The theoretical implication of this is that the alternative solution must increase power consumption by a factor of 10 to achieve the same EIRP. The practical meaning is that Gapwaves antennas could be used in longer distances, which will be a very important factor in upcoming 5G networks operating on higher frequencies. The antenna has further characteristics that make it possible to produce at a lower cost, which is another critical factor.

Both 5G and automotive bring significant opportunities. There is no lack of opportunities as the company is targeting sizeable markets with a technology shown to be more efficient than alternative solutions. Operators have started to deploy 5G networks, but the greatest infrastructure investments are expected in 2022 and beyond. The communications market is further highly concentrated, implying that an agreement with one key vendor would generate significant revenues for Gapwaves. It is, therefore, of the highest importance to exploit the company's first-mover advantage by becoming the antenna provider in telcos' 5G deployments.

While we believe that the greatest potential arises with the upcoming 5G roll-out, the company has yet not demonstrated a commercial interest from prospective telco customers. The case, at least in the short-term, has shifted towards the automotive opportunities following the two recent promising contracts with automotive radar suppliers of Tier-1 size. The deals open up for large revenues over long periods. As an example, we believe that the royalty agreement with Veoneer could generate about SEK 10m in revenues beyond 2022 while an agreement with a "tier 1" could generate up towards SEK 200m in product sales p.a.

Fair value of SEK 24 per share in base case. We argue that the two recent contracts signal an increased likelihood for additional deals within the segment, and we expect the company to attract new automotive customers over time. The recent agreements have had a significant positive effect on the share price, which now is up 66% over the last 1.5 months and is now trading between our base and bull cases.

We yet cannot see if there is a demand from the telecom customers. If the company would succeed in delivering an active antenna solution solving genuine needs, we would be convinced that it implies a solid opportunity - reflected by our bull case **(SEK 52 per share)**. This especially holds as there, as of today, is no commercially viable technology with the same promising characteristics. Until we see a deal with a key vendor, it is difficult to assess whether the product really should be regarded as a 5G enabler.

We remain fully focused on following the progression in turning development projects into volume contracts and the advances in attracting new development projects, which we believe to be the most important share price drivers going forward.

Risks

Targeting markets that are tough to penetrate. The company targets markets that offer enormous opportunities, implying that there will be more than one actor trying to reap from the arising opportunities. Another tough challenge for the company is that potential customers within telecom develop alternative solutions in-house. These actors have established research organizations and the capital needed to pursue R&D activity and could thereby reduce their dependency on external component suppliers.

Uncertainties regarding next-gen networks. There are yet uncertainties regarding specifications of next-gen networks and what equipment that will be used. This may impose that clients are more reluctant to invest in new technology and equipment. The uncertainties are, on the other hand, nothing that hinders clients from testing new equipment.

Catalyst types

Nre agreement

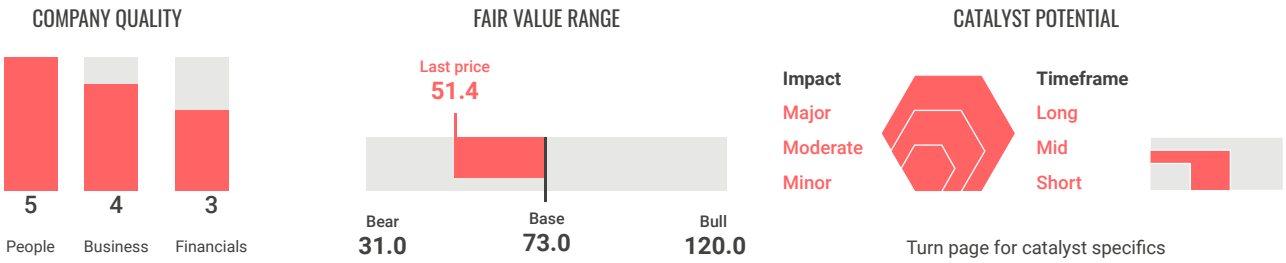
An NRE-agreement (where clients' bear one-time costs related to R&D project) signed with a telco would indicate that there truly is a commercial interest for Gapwaves technology for 5G applications.

Hexatronic Group HTRO

Company page

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

Redeye Rating



Turn page for catalyst specifics

Snapshot

Marketplace	NASDAQ Stockholm
CEO	Henrik Larsson Lyon
Chairman	Anders Persson

Share information

Share price (SEK)	51.4
Number of shares (M)	37.5
Market cap (MSEK)	1,892
Net debt (MSEK)	396

Analyst

Havan Hanna
havan.hanna@redeye.se

Conflict of interests

Havan Hanna owns shares in Hexatronic Group: Yes

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

Financials

	2017	2018	Redeye Estimates 2019E	2020E	2021E
Revenue, MSEK	1,299	1,598	1,896	2,331	2,918
Growth	*25.9%*	*23.0%*	*18.6%*	*23.0%*	*25.2%*
EBITDA	151	138	224	298	359
EBITDA margin	*11.6%*	*8.7%*	*11.8%*	*12.8%*	*12.3%*
EBIT	122	93	125	169	233
EBIT margin	*9.4%*	*5.8%*	*6.6%*	*7.3%*	*8.0%*
Pre-tax earnings	116	82	106	146	211
Net earnings	90	59	77	107	154
Net margin	*7.0%*	*3.7%*	*4.1%*	*4.6%*	*5.3%*
Dividend/Share	0.29	0.39	0.39	0.44	0.49
EPS adj.	2.41	1.59	2.06	2.84	4.09
P/E adj.	31.9	27.1	24.0	17.4	12.1
EV/S	2.1	1.2	1.2	0.9	0.7
EV/EBITDA	18.3	13.6	9.8	7.2	5.9

Last updated: 2019-09-12

Owner	Equity	Votes
Accendo Capital	10.9%	10.9%
Handelsbanken Funds	8.2%	8.2%
Jonas Nordlund, privately and corporately	8.1%	8.1%
Chirp AB	4.8%	4.8%
Fondita Nordic Micro Cap	4.7%	4.7%
Swedbank Robur, West Fund	3.4%	3.4%
Länsförsäkringar Funds	3.2%	3.2%
AMF Insurance & Funds	2.9%	2.9%
Göran Nordlund, privately and corporately	2.9%	2.9%
Avanza Pension - Insurance Company	2.6%	2.6%

Company description

Hexatronic is a technology group which specializes in fiber communications and is listed on Mid 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 16 companies with a total of around 570 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 case

- Hexatronic is establishing themselves in new growth regions
- Structural forces will drive long-term growth
- Increased profitability
- Valuation does not reflect a growth company

Hexatronic is establishing themselves in new growth regions

Even though Hexatronic has successfully repositioned themselves towards international growth markets (UK, North America and Germany), it is penalised due to concerns around Brexit and Hexatronics historical main market, Sweden. The Q2'19 report should be viewed as the definitive proof point of Hexatronics international journey as the region 'Rest of Europe' is now its biggest geographical market. Brexit represents a significant risk in the short-term but should have limited effects on the investment case over the long-term. We argue that the market is underestimating the structural growth of the international markets - the market for fiber optic/broadband products is and will remain a growth market for many years to come (2025-2030).

Structural forces will drive long-term growth

An essential part of our Investment Thesis is the fact that structural forces drive the growth of Hexatronic. These significant and ongoing thematic trends are the increased digital consumption, i.e., enhanced usage of data.

Increased profitability

Long-term margins should improve as capacity utilisation increases and system-seeling gains further traction - in international regions Hexatronic focus on selling their system of fiber products called Matrix with higher margins. More mature Prysmian Telecom has about 20% EBITDA margin (compared to Hexatronics 10-12%).

Valuation does not reflect a growth company

Overall we find that Hexatronic is a growth business but not valued as one; it trades at an EV/EBIT '20E multiple of 13x. We believe the valuation will increase as the uncertainty around Brexit and the Swedish market diminishes. This will allow the market to appreciate the long-term structural forces.

Bear-points (counter-arguments to our Thesis):

- A dampened economy could lead to less investments in the fiber infrastructure.
- Low price Chinese supplier still has a focus on their domestic market; this could shift over the coming years as the large Asian market matures.
- A hard Brexit.
- No traction in the US/Germany.

Catalyst types

M&a

Hexatronic has a clearly stated acquisition strategy and the company•• continuously evaluates new targets. We assume that more value-adding M&A•• deals will come.

International orders

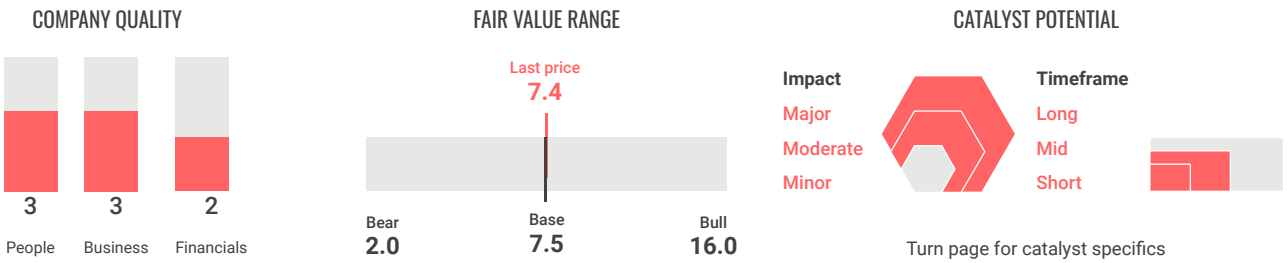
Breakthrough deals in Hexatronics international markets should raise the•• valuation. The company has already shown its competitive position in the UK•• with a deal worth SEK 500 million. Two other important deals have been signed•• in the UK (SEK 30 million) and on the German market (SEK 40 million). We see•• it as likely with further orders, especially in the UK and the US, in the coming•• year.

Sivers IMA SIVE

Company page

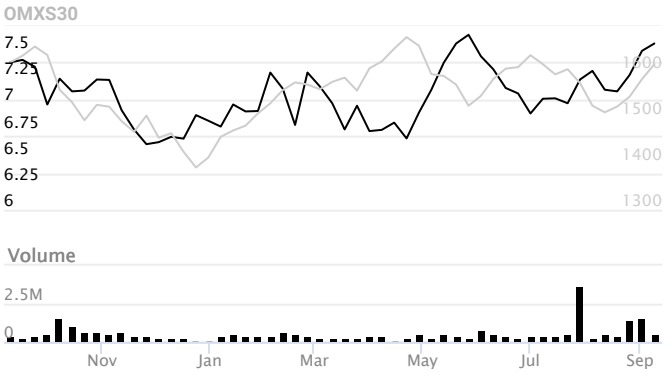
https://www.redeye.se/company/sivers-ima

Redeye Rating



Turn page for catalyst specifics

Snapshot



Marketplace	First North Stockholm
CEO	Anders Storm
Chairman	Tomas Duffy

Share information

Share price (SEK)	7.4
Number of shares (M)	130.3
Market cap (MSEK)	962
Net debt (MSEK)	-4

Analyst

Dennis Berggren
dennis.berggren@redeye.se

Conflict of interests

Dennis Berggren owns shares in Sivers IMA: No

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

Financials

	2017	2018	Redeye Estimates 2019E	2020E	2021E
Revenue, MSEK	65	70	124	237	373
Growth	*>100%*	*6.6%*	*77.6%*	*90.9%*	*57.3%*
EBITDA	-20	-58	-20	17	69
EBITDA margin	*Neg*	*Neg*	*Neg*	*7.0%*	*18.6%*
EBIT	-51	-102	-73	-5	45
EBIT margin	*Neg*	*Neg*	*Neg*	*Neg*	*12.0%*
Pre-tax earnings	-52	-111	-79	-10	41
Net earnings	-46	-103	-79	-10	41
Net margin	*Neg*	*Neg*	*Neg*	*Neg*	*10.9%*
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	-0.49	-0.87	-0.61	-0.08	0.31
P/E adj.	-12.0	-7.4	-11.9	-93.0	23.6
EV/S	7.9	11.1	7.6	4.2	2.6
EV/EBITDA	-26.6	-13.2	-47.0	60.0	13.7

Last updated: 2019-09-06

Owner	Equity	Votes
Keith Halsey	23.9%	23.9%
Erik Fällström	18.1%	18.1%
Avanza Pension	6.8%	6.8%
Swedbank Robur Ny Teknik	5.5%	5.5%
Swedbank Robur Folksam LO Världen	3.3%	3.3%
AMF Försäkring & Fonder	3.1%	3.1%
Neil Martin	1.6%	1.6%
Andrew McKee	1.5%	1.5%
Nordnet Pensionförsäkring	1.3%	1.3%
Nordic Cross Asset Management	1.5%	1.5%

Company description

Sivers IMA has extensive experience from developing micro- and millimeter wave products. The company is focused on the development and sales of radio frequency components and modules for data- and communication systems. The most significant area of application is 5G, which is expected to bring substantial opportunities. In 2017, Sivers IMA acquired the Scottish foundry CST Global, which produces optical semiconductors. Its most promising markets are FTTx and data centers. Common for both business units is that they grow with the demand for improved data and communication systems.

Investment case

- Unique technology based on extensive background in microwave development.
- Case strengthened by partnerships with established providers.
- Expected to take part of huge emerging markets.

Unique technology based on extensive background in microwave development. Sivers IMA has produced a unique chip by combining its technical expertise and extensive background in microwave development to innovate products for new applications. Sivers IMA's chip has a high level of integration and high amplitude modulation (64 QAM versus ~16 QAM from general competitors) and more channels, which means the chip covers a broader spectrum (57-71 GHz vs 57-64 GHz). The chip is also designed for infrastructure, while the solutions from many competitors were initially developed for consumer electronics. In summary, this combination makes Sivers IMA's chip unique.

The company has thus gained a technological edge, giving Sivers IMA significant opportunities in the forthcoming rollouts of 5G systems. Shipments of RFICs for unlicensed applications are expected to start in 2019, while licensed 5G is expected to take off in 2020. Hence, it is important to follow the progress of signing additional design wins and partnership over the coming year. By the end of Q1'19, the company had a total of nine design wins – illustrating its good potential to grow with the 5G market.

Case strengthened by partnerships with established providers. Over the past two years, the company has entered into partnerships with prominent companies such as Ampleon, Fujikura and IDT. All these businesses offer leading-edge technology and have strong positions in the telecom market. We are especially upbeat about the collaboration with Ampleon, which has a market share of around 35% in RF power and has invested in Sivers IMA through a convertible bond. This partnership gives the company an entry with all major system vendors, offering significantly improved sales and development opportunities while lending credibility to Sivers IMA's technology.

Expected to take part in huge emerging markets. We expect Sivers IMA to grow rapidly as the 5G market take off. But since these markets are expected to get really big after 2022, the majority of Sivers IMA's valuation is based on assumptions about future market shares and market size years from now. We believe that Sivers IMA is strongly positioned to win a number of contracts with small system vendors, thus covering 20% of the estimated addressable unlicensed 5G market. At the same time, we expect the company to successfully market its 5G chip to a number of customers, thus taking up to 5% of the licensed 5G-based market for FWA applications.

We also expect the fiber operations to continue to develop very well, especially within data center applications, further fueling growth. This results in forecasts for the company to achieve sales of around SEK 500 million in 2022, and exceeding SEK 1.3 billion at the end of our forecast period (2028).

There is further potential for even higher growth in a scenario where the company attracts a tier-1 system vendor, which would give it a significantly higher market share in view of the high market concentration, which is captured by our bull case.

Counter-thesis (bear points)

Tough 5G-competition. Sivers IMA is not unique in wanting to benefit from the huge 5G market. There are a number of providers with new solutions for next-generation networks, while the largest potential customers among the system vendors are developing their own solutions in-house. Although Sivers IMA's current offering is strong, it is likely that providers with new solutions will emerge.

Uncertainty regarding future specifications. There are still some uncertainties regarding the next-generation network 5G. The development of new cellular infrastructure leads to enormous technical and financial challenges, which requires that all stakeholders in the value chain see great value in investing in new technologies. This may cause actors to wait before investing in new technology, which could delay the breakthrough.

Catalyst types

Additional 5g design wins

It has now also completed its chip for licensed 5G. This will imply opportunities to sign valuable deals with system vendors, proving a commercial interest in its 5G chip and significantly improved opportunities to take part in forthcoming 5G rollouts.

Follow-up order from "fortune 100"-customer

CST Global received an order worth SEK 21.5m regarding pre-commercial devices from a customer of "Fortune 100"-size in October and has since then received two follow-up orders worth SEK 27.3m. We believe that there is a good chance that the customer places additional follow-up orders over the coming 6 months. In addition, it could potentially result in commercial volume orders, which should be significantly larger, potentially bringing revenues exceeding SEK 100m.

Large orders for unlicensed 5g chip

Sivers IMA's unlicensed 5G chip is ready for volume production. It is thus important to show that the chip not only is technically advantageous but also enough commercially appealing to result in significant orders. This will be vital for the company to achieve substantial growth during the coming three years.

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Redeye Rating (2019-09-17)

Rating	People	Business	Financials
5p	11	8	1
3p - 4p	65	53	28
0p - 2p	13	28	60
Company N	89	89	89

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