

QleanAir

Sector: Technology

The Fresh Breeze of Qlean Air

Redeye initiates coverage of QleanAir, a Swedish premium niche provider of air cleaning solutions. We see a very attractive case driven by several long-term fundamental drivers, and we also believe the company will benefit greatly once Covid restrictions ease. We are positive to the share and see attractive growth prospects combined with QleanAir's high margin products.

Several attractive and profitable growth prospects

We believe QleanAir is in a very attractive position to benefit from several long-term fundamental trends. This includes protecting people from second-hand smoking, legislation, and increased awareness of health issues related to air pollution. We also see a pent-up demand being realised as Covid restrictions ease, and believe the underlying demand for QleanAir's products and services has increased as a result of Covid. Therefore, we consider the company to be a Covid-winner as business conditions go back to normal.

QleanAir's offering yields 57% recurring revenue and 70% gross margin

QleanAir offers products through 3 segments: Cabin Solutions (Smoke cabins), Facility Solutions (Air cleaners), and Room Solutions (Cleanrooms). 49% of sales stems from APAC, 43% from EMEA, and 9% from the US. Recurring revenues are growing and currently account for 57% of sales through 3-year leasing contracts, providing a solid and predictable revenue base going forward. We expect an organic sales CAGR of 13% for the period 2021-2024E. Coupled with its asset-light business model, and gross margins of around 70%, we see a 2021-2024E EBIT CAGR of 20%.

Valuation - Significant upside potential

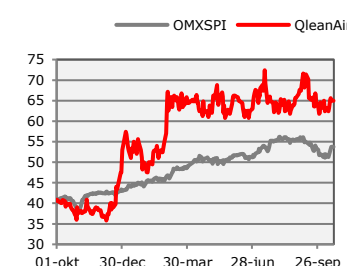
We have derived a DCF based fair value range for QleanAir of SEK 45-127 per share, with a base case of SEK 86 per share. QleanAir trades at '22E EV/EBIT 10x, which can be put in relation to our selected peer group's average of 17x. Using the same peer multiples for QleanAir, we derive a fair value of SEK 102 per share. Furthermore, we expect '22E-24E lease adj. FCF-yields of 8-10% and dividend yields of 2-3%. In our view, QleanAir offers above average economics while trading below the average of our selected peer groups.

Key Financials (SEKm)	2019	2020	2021E	2022E	2023E	2024E
Net sales	457	493	449	521	582	648
Sales growth	14%	8%	-9%	16%	12%	11%
EBITDA	80	124	106	128	141	162
EBIT	32	95	78	107	116	134
EBIT Margin (%)	7%	19%	17%	20%	20%	21%
Net Income	-8	67	62	76	83	98
EV/Sales	1.8	2.0	2.6	2.1	1.8	1.6
EV/EBITDA	10.3	8.0	10.8	8.6	7.5	6.2
EV/EBIT	25.7	10.4	14.6	10.4	9.2	7.5

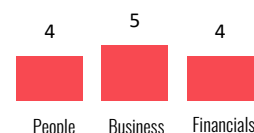
FAIR VALUE RANGE

BEAR	BASE	BULL
45	86	127

QAIR VERSUS OMXSPI



REDEYE RATING



KEY STATS

Ticker	QAIR.ST
Market	Nasdaq
Share Price (SEK)	65
Market Cap (SEKm)	970
Net Debt (SEKm)	200
Free Float (%)	75
Avg. daily volume ('000)	5000

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Investment Case

Attractive and profitable growth prospects

Following QleanAir's recent product releases, combined with regulation, and Covid, demand for QleanAir's offering is increasing – and we foresee a long runway of growth in all product segments – especially in Japan. We believe there are great cross-selling opportunities for QleanAir – leveraging on its already broad customer base of 3000+ customers worldwide. We see a 13% organic sales CAGR in the coming 3 years, adding to QleanAir's recurring revenue base of 57% of sales.

Premium products and Clean air as a Service

One of the main reasons for the attractive growth opportunities mentioned above is increased awareness combined with "Clean Air as a Service" – which implies the customer does not invest heavily upfront and can instead pay a monthly fee. Therefore, we see a pent-up demand realising, as customers pay for clean air rather than a product (no headache). In combination with this, QleanAir offers state of the art air cleaning products with a long and credible track record, combined with performance guarantee commitments.

Asset light business model

QleanAir's business model is very asset light. The company has outsourced production but still has R&D, enjoying the benefits of both. Therefore, very limited CAPEX is required. Also, due to suppliers delivering products on a just-in-time basis and QleanAir gets paid in advance – the working capital is negative – resulting in very high free cash flow generation and ROIC.

Widening the scope of business

73% of QleanAir's sales stem from Cabin Solutions, the only product segment until 2012. In 2012, QleanAir started investigating other product segments and established facility- and room solutions – which now account for 27% of total sales. We see attractive growth prospects in all 3 product segments as we advance.

Increasing awareness spurred by covid

Covid has genuinely improved the awareness of air quality. Hospitals and schools throughout Europe are demanding solutions to prevent the virus from spreading. Also, the understanding of the benefits, such as improved efficiency and increased focus, is rising. The effects should persist beyond Covid.

Regulatory tailwinds

We believe each of QleanAir's business segments is benefiting from regulatory tailwinds. For starters, in Japan, the health promotion act plays in favour of smoke cabins. In cleanrooms, USP 797 and 800 increase the demand. We believe these legislations will realise a pent-up demand once Covid restrictions ease.

Valuation

We believe the QleanAir share is undervalued – both in absolute and relative terms. We have derived a DCF fair value range for QleanAir of SEK 45-127 per share, with a base case of SEK 86 per share. Also, we do not find our estimates aggressive but rather conservative. We also wish to highlight that QleanAir is trading at a significant discount to our selected peer groups. QleanAir's '22E P/E stands at 13x, relative to the peer groups' average of 22x. QleanAir's '22E EV/EBIT stands at 10x, relative to the peer groups' average of 17x. Using the same peer multiples for QleanAir, we derive a fair value of SEK 102 per share. Furthermore, QleanAir has twice the EBIT margin relative to its peer groups (20% vs 11%), and according to our estimates, QleanAir will deliver a '21E-'23E EBIT CAGR of 20%, relative to the peer groups' average of 12%. We believe once the market realises this discrepancy, and understand QleanAir's business, the valuation spread will significantly decrease.

Key Catalysts

New orders

We believe new orders will be likely catalysts as we proceed. When examining historical share price reactions, it is evident that this sort of news has caused the stock to move. We believe it also reinstates the growth story of QleanAir.

New customers

Along with new orders, we believe new customers will be likely catalysts. By comparison, when QleanAir announced Karolinska was a new customer, the stock price surged, likely because the potential is very high both at Karolinska and in general in the hospital sector. New customers in the same segment or industries with great potential should likely offer the same reaction.

Solid quarterly reports

QleanAir has been listed for roughly 1.5 years and has posted 7 quarterly reports during this period. We believe every quarterly report that is somewhat in line with our expectations should increase the confidence in the story of QleanAir, thus reducing the valuation gap between the share price and our base case.

Risks

Deteriorating main end market

73% of QleanAir's sales stem from Cabin Solutions, which correlates to smoking prevalence. Suppose the total number of smokers decrease, the potential end market decrease. However, the first step of stopping smoking is by restricting it – therefore, smoke cabins can be the first step. Smoking is bad for human health, but a smoke cabin prevents second-hand smoking. We believe the market for cabin solutions is mature and somewhat unsexy in the long term – but this should limit new entrants. In the foreseeable future, we still see good demand for the segment.

Smoking bans

Along with the paragraph above, smoking bans are positive for QleanAir, as the first step often is implementing smoking cabins. However, it could have a negative effect if this step is avoided, and complete prohibition is enforced.

New product segments fail to materialise fully

A large part of the growth story comes from Facility Solutions and Room Solutions showing significant growth – where we see the segments growing 20% respectively 15% organically over the coming 3-year period. If this fails to materialise, our estimates are at great risk, and so is the growth story. However, recent years have shown the opposite. We believe Covid has been an underlying positive catalyst for QleanAir's markets, but we can only be certain once the situation is back to normal.

Competition

QleanAir currently enjoys market leadership in some of its niches, and competition is not fierce in our view. This is the reason why QleanAir can enjoy such high levels of gross margins. If competition were to increase, we believe it could hurt the price level and thus margins. We do not believe this is the case as we advance, but it should be considered a risk.

Company profile

Company

QleanAir is a premium niche provider of air cleaning solutions. The company was founded in 1988, and has headquarters in Stockholm. The company is active in EMEA, APAC, and America. It has 108 FTEs and reported 2020 net sales of SEK 493m.

Product

QleanAir develops, designs, and manufactures (outsourced) smoke cabins, standalone air cleaners, and cleanrooms based on over 25 years of experience. The products are offered to the customer as a service rather than a one-time sale.

Segments

Smoke cabins are sold under the Cabin Solutions segment, representing 73% of sales. Standalone air cleaners are sold under the Facility solutions segment, representing 15% of sales. Cleanrooms are sold under the Room solutions segment, representing 11% of sales. By geography, APAC accounts for 49% of sales, EMEA accounts for 43%, and Americas accounts for 9%.

Customers

QleanAir's customers are based all over the globe. Smoke cabins are primarily sold in Europe (mature market) and Japan (growth market) to airports, hotels, manufacturing industries, and offices. Air cleaners are mainly sold to Europe and Asia, to industries, offices, and hospitals. Cleanrooms are primarily sold in the US and the Nordics, targeting hospitals, pharmaceuticals, and compounders.

Value proposition

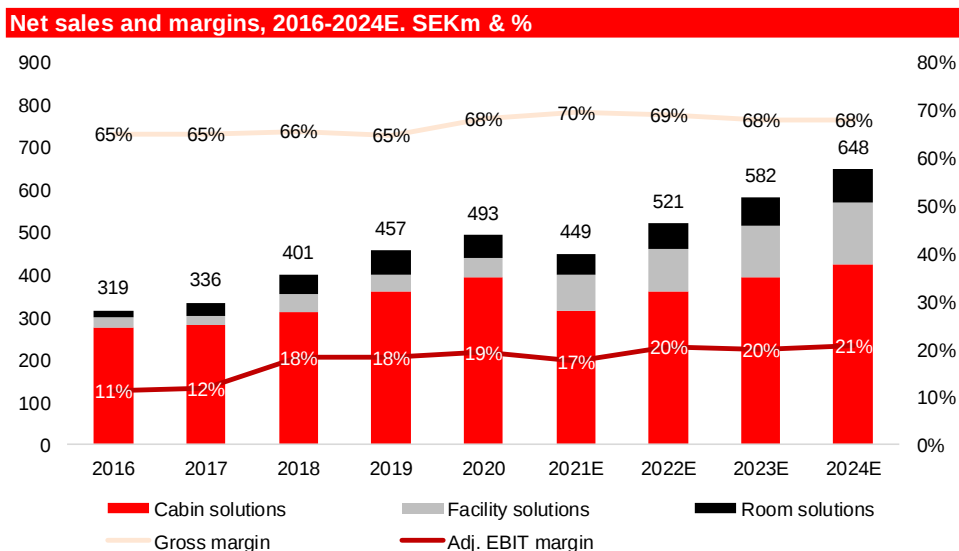
QleanAir's products are all premium and offer the state of the art characteristics of the highest quality and design. Bundled with maintenance service and leasing solutions, the customers can enjoy clean air as a service. Also, QleanAir offers performance guarantee commitments, removing any administrative headache, as customers are charged a quarterly fee (3y contract) rather than investing upfront. QleanAir significantly lowers any barriers to enjoying clean air and all its benefits.

Stock

QleanAir went public in December 2019 and is listed on Nasdaq first north and has a market cap of nearly SEK 1bn.

Financials

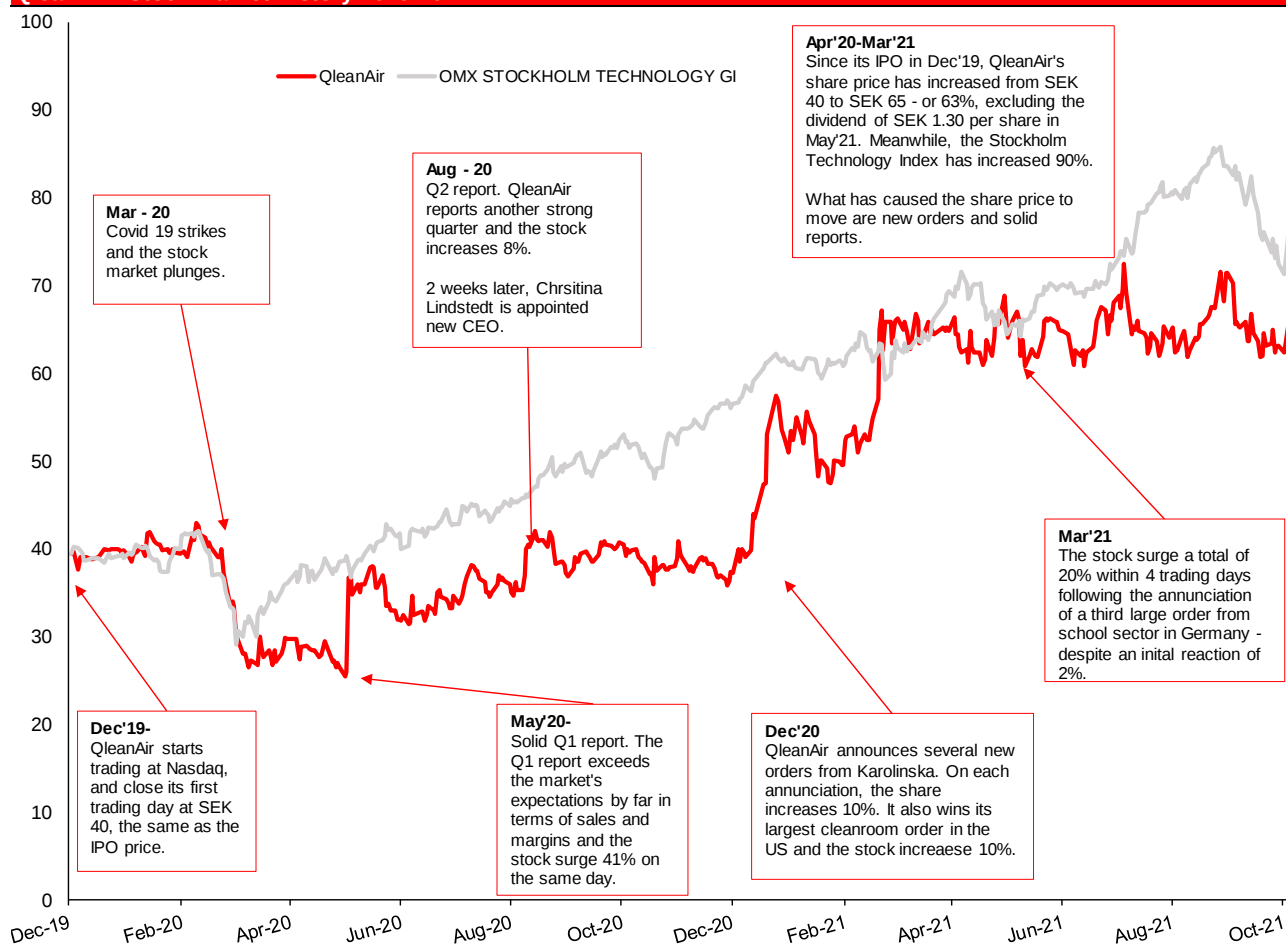
QleanAir has experienced a solid organic (growth excl. M&A) growth CAGR of 10% in the last 10 years. In 2020, QleanAir reported SEK 493m in sales and SEK 336m in gross profit, for a margin of 68%. EBIT was SEK 95m, yielding a margin of 19%. QleanAir has financial targets for the medium term of 10% organic growth, 15-20% EBIT margin, and 30-50% dividend pay-out policy. Furthermore, QleanAir has 57% recurring revenues.



Source: Company data, Redeye Research

The following chart below illustrates historical events such as new orders and solid quarterly reports, which has caused the share to move. We believe this will be the case going forward, as well. The share had only been listed for 3 months before Covid struck and affected capital markets, and we believe it could be somewhat overlooked, as it has not had a fair chance to prove itself. However, given its solid fundamental performance, we think it has gained some confidence from the market. It has, however, slightly underperformed the OMXS Tech index.

QleanAir - Stock Market History 2019-2021



Source: Nasdaq, Redeye Research

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The issue / Background

Every year, around 7m people die because of air pollution, and 9 out of 10 people breathe air that exceeds WHO guideline limits containing high levels of pollutants. This costs the global society USD 3.9 trillion every year, or 3.3% of the world's GDP, and the trend is not looking positive. In 2018, 4.5m deaths with PM 2.5 pollution (fine inhalable particles in the size of 1/30 of a human hair) also was responsible for 1.8bn days of work absence, 4m new cases of child asthma and 2m preterm births. This makes air pollution one of the largest global health problems in today's society.

The main reason for global air pollution comes from energy production and energy consumption. Another reason is transportation, where increasing levels of freight forwarding and rising congestion levels in inner cities are increasing.

Another reason is smoking and second-hand smoking, causing 8m deaths pa. Tobacco-related costs are also high. In a survey study made in 2009-2012, experts estimated the annual societal costs attributable to smoking in the United States were between USD 290-330bn. This includes USD130-180bn for direct medical care of adults and USD 150bn for lost productivity due to premature deaths. Also, in 2006, lost productivity due to exposure to second-hand smoke cost the country USD 6bn.

It is evident that air quality has a major impact on human health. However, it is not getting the attention it should. Individuals consume 1 kg of food, 2 litres of drinks, and 20 kg of air every day. Given all the focus that is given to the former ones, we argue that increasing awareness is to be seen in the latter – and should increase for a long time to come. QleanAir holds an excellent position to profit from this trend.

The following table illustrates several strong fundamental market drivers that all plays in QleanAir's favour.

Strong global fundamental market drivers

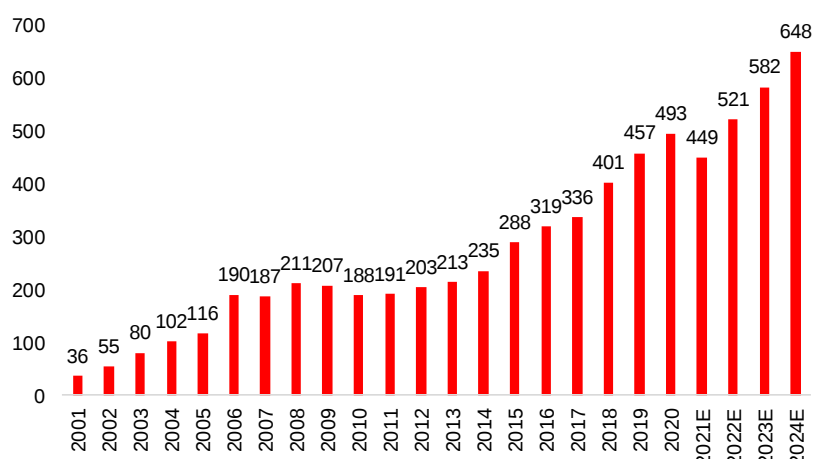
	▶ Circular economy – recycling of air ▶ Increased awareness of air pollutant danger ▶ Increased regulation ▶ Required compliance ▶ CSR	 	▶ UN 17 Sustainable Development Goals for 2030 expected to drive the market
	▶ EU Mandatory Regulation 2018 – Non-Financial Reporting (CSR) ▶ Health impact of air pollution ▶ Recycling of air ▶ Clean air as a service ▶ Corporations and institutions are moving from CAPEX to OPEX ▶ EU regulation	 	▶ Increasing general awareness of importance of air quality ▶ Corporate social responsibility and regulatory pressure
	▶ Mandatory regulations and required compliance ▶ CSR ▶ Clean air as a service ▶ Corporations and institutions are moving from CAPEX to OPEX ▶ Flexible and scalable solutions ▶ Time to market	 	▶ Regulatory changes requiring clean air in pharmacies and hospitals ▶ USP 797 (sterile compounding) and USP 800 (hazardous drugs)
	▶ Increased regulation ▶ Required Compliance ▶ CSR ▶ Health impact of air pollution ▶ Recycling of air ▶ Time to market	 	▶ Regulatory changes (amendments to the Health Promotion Act) in April 2020, combined with growing reluctance toward smoking enforcing the use of cabins

Source: Company data, Redeye Research

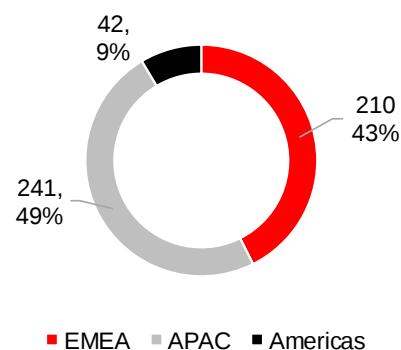
QleanAir's offering / QleanAir in brief

QleanAir is a niche provider of premium air cleaning solutions for indoor environments, founded in 1988. It operates in the EMEA, APAC and the Americas – with its headquarters located in Solna, Sweden. The company employs 108 FTEs, of which 50% are salespeople, 25% in support & service, 10% admin, and the remaining 15% refers to R&D, marketing, management, other key individuals. As the following chart below illustrates, the company has posted a very impressive 19-year sales CAGR of 15%.

2001-2024E net sales, SEKm



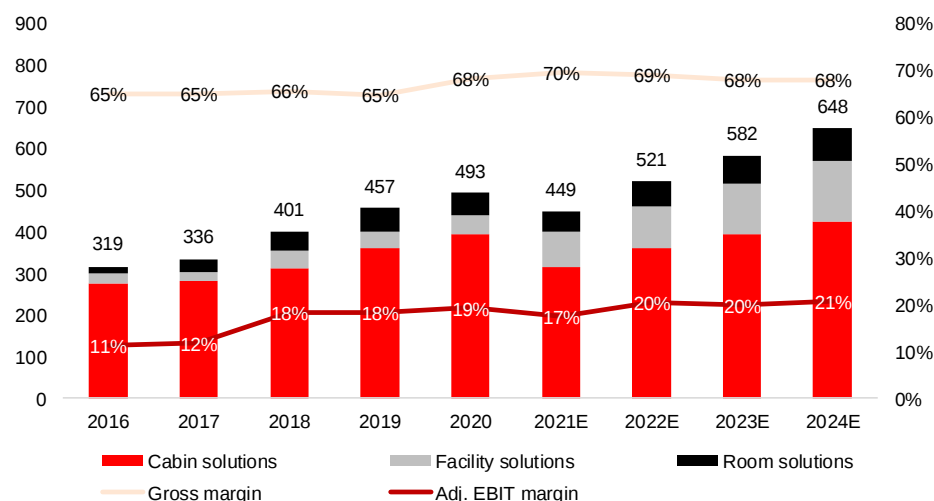
Geographic revenue split 2020, SEKm, %



Source: Company data, Redeye Research

The company has 3 business divisions: Cabin solutions, 73% of R12m sales; Facility solutions, 15% of sales; and Room solutions, 11% of sales. Net sales have grown at a 12% CAGR during 2016-2020, and gross margins have been around 65-70%, resulting in 15-20% EBIT margins - all in all, resulting in an impressive EBIT CAGR of 26% for the same period.

Net sales and margins, 2016-2024E. SEKm & %



Source: Company data, Redeye Research

QleanAir offers solutions that protect people, products and processes from air pollution in indoor environments. QleanAir's main product category, Cabin solutions (smoke cabins), protect people from second-hand smoking and exposure to harmful tobacco smoke by filtration of particles and gases. The segment was supplemented with an air cleaner segment (facility solutions) and a cleanroom segment (room solutions) in 2012.

All product areas are based on the same type of proprietary air cleaning technology. QleanAir's expertise in the area has compounded over many years, which allows QleanAir to expand the product portfolio and scale production cost-effectively – while increasing its cross-selling opportunities between the different segments.

Product segments



Source: Company data, Redeye Research

We argue that QleanAir has significant barriers to entry. Founded over 30 years ago focusing on filtering tobacco smoke, QleanAir has built on its expertise. Tobacco smoke contains over 4000 toxic contaminants and is designed to be as addictive for humans as possible. Successfully removing harmful particles while protecting people from second-hand smoking is truly an achievement. Having built a network of 3000+ customers across the globe through its premium cabin solutions, it was not a far step to design and produce air cleaners, building on the same technology, and start marketing them towards its existing customer base.

Barriers to entry

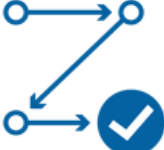


Source: Company data, Redeye Research

All of QleanAir's products remove >99% of all polluting particles – which has a significant positive effect on human health, efficiency, and costs. All products offered by QleanAir are based on the same mechanical filtration technology and know-how due to the company's compounded air cleaning expertise. Developing and adding new products has come at a low incremental cost while providing new growth paths.

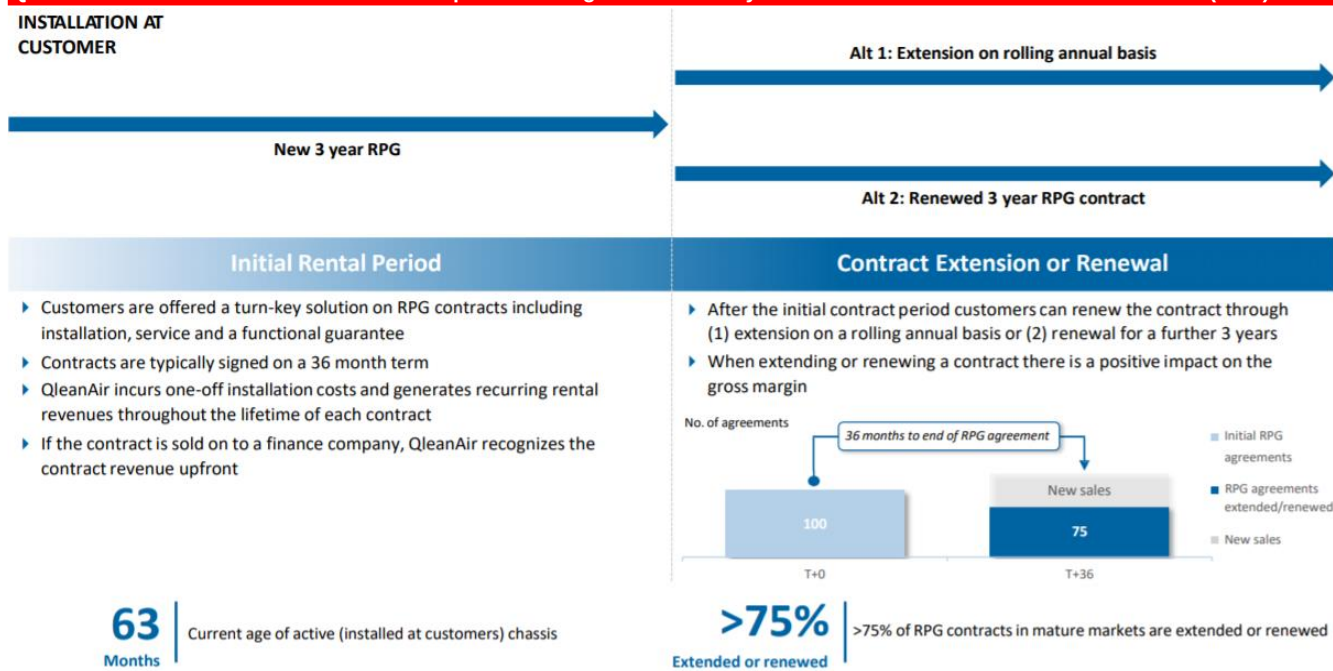
The awareness of clean and polluted air and its effect on human health increase rapidly, especially after the Covid-19 outbreak. However, being a customer is not easy, as it is very difficult to assess what type of air cleaner is needed for a specific location (in terms of airflow, decibel, filter etc.) – especially given an air cleaner is often a sizable investment for its customers. QleanAir has managed to capitalise on this using its expertise and providing clean air as a service. It takes full responsibility for installation, service, monitoring, and maintenance – while offering performance guarantees – while the customers are charged a quarterly fee during a 3-year contract.

The benefits are clear (see the table below), and it is easy to understand why the increased awareness correlates with increasing order intake.

Benefits for logistics / producing customers					
					
Healthier environment	Cleaner inventory	Helps reduce downtime	Less cleaning	Lower operating costs	Flexible solution
Easier to work and breathe in/improves working conditions	Significantly less floating dust particles on goods/parcels/packages	Fewer interruptions in processes	Having less dust and dirt in the air and on surfaces means less time dusting, as well as significantly reduced allergies caused by dust mites and particles in the air and on surfaces.	Fewer clogs and maintenance. Our systems promote a smart airflow, which helps regulate temperature and can reduce energy bills, due to heating/cooling.	Independent on existing HVAC system, easily moved and adopted to changing requirements.

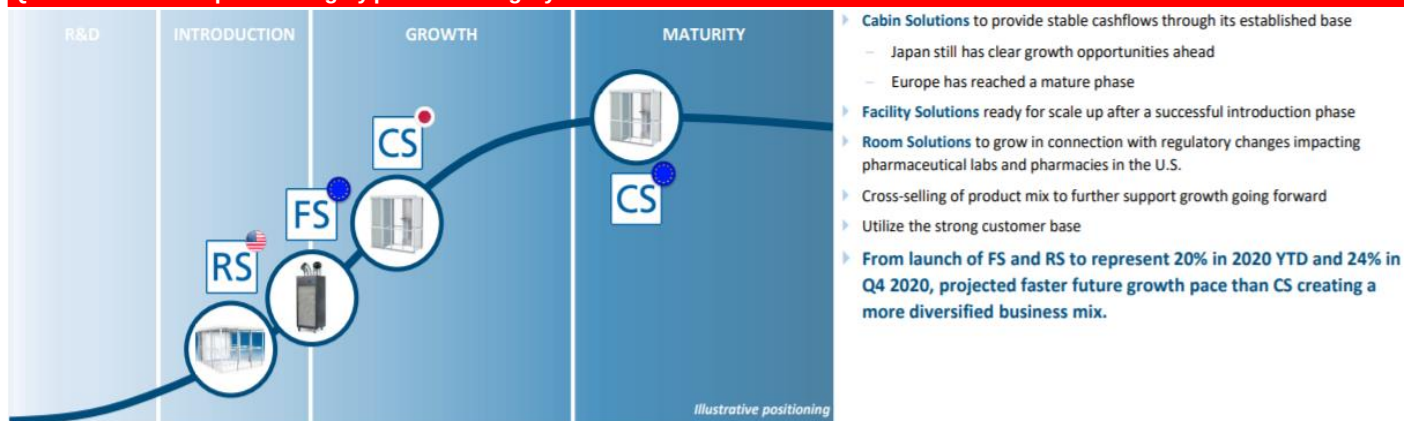
Source: Company data, Redeye Research

Thanks to clean air as a service, customers are more eager to purchase smoke cabins and air cleaners, as they can benefit from the expertise of QleanAir, and move from CAPEX to OPEX. As a result, QleanAir has a very attractive recurring revenue base with a contract base of an average of 63 months. During the last 12-rolling months, recurring revenues amounted to 57% of net sales. It also has a high renewal rate of >75%, and it is worth pointing out renewed contracts (around 75%) has even higher gross margins than new first-time contracts (around 65%), as the COGS are very low. The following table illustrates the process of signing a customer contract.

QleanAir offers customers across all three product categories a turn-key solution on Rental Performance Guarantee (RPG) contracts


Source: Company data, Redeye Research

Due to its broad customer base of >3000 customers worldwide, there are great possibilities for cross-selling, and the lifetime value per customer has truly increased as QleanAir has launched new segments and products. The following chart illustrates QleanAir's product segments and respective positions in the market.

QleanAir's current positioning by product category


Source: Company data, Redeye Research

QleanAir currently has main exposure to the following key markets and segments (also illustrated in the chart above):

Cabin solutions in Europe

The segment primarily refers to Germany, which is considered a mature market. This is also where most of the revenues are generated. The market is considered mature and stable. This is where QleanAir has had most of its business since its foundation.

Cabin solutions in Japan

This is where the majority of growth in cabin solutions is coming from. The country has recently implemented a smoking ban (The health promotion act), which has resulted in

increasing demand for cabin solutions. This increasing customer base also allows for cross-selling opportunities between the different segments.

Facility Solutions in Europe (and Japan)

The segment is seeing increasing growth, primarily because of increased awareness regarding air pollution and its negative effects on human health and industrial processes. Covid-19 has also vastly spurred sales, as the products help to prevent the spreading of viruses. As a result, newly established customer segments hospitals, offices and schools are growing rapidly.

Room solutions in the US

The room solutions segment in the US is the most recent segment and market of QleanAir. It offers cleanrooms to customers in hospitals, medical/chemical compounding, and hi-tech manufacturing. This market is seeing pent-up demand being realised as a result of legislation (USP 797 & USP 800) being implemented, where cleanroom criteria are even higher than before.

QleanAir reports geographic sales for EMEA, APAC and Americas. However, in its prospectus from 2019, the geographic presence is further detailed, which is illustrated in the table.

QleanAir geographic presence

Geographic market	% of revenue 2018	% of installed base 2018	Focus
Japan	35.4%	21.0%	CS
Germany	23.9%	29.5%	FS/CS
USA	8.7%	4.6%	RS
Sweden	8.1%	12.3%	FS/CS
Austria	4.9%	4.8%	FS/CS
Switzerland	4.7%	4.7%	
Netherlands	2.7%	3.1%	
Finland	2.1%	2.2%	FS
Others	2.0%	8.1%	
Denmark	1.9%	1.6%	FS
France	1.8%	2.0%	
Belgium	1.5%	1.5%	
Poland	1.4%	2.3%	
Norway	0.9%	1.2%	FS
China	0.0%	0.9%	
Total (SEK m, units)	400.8	7598	

Source: Company data, Redeye Research

Segment: Cabin Solutions

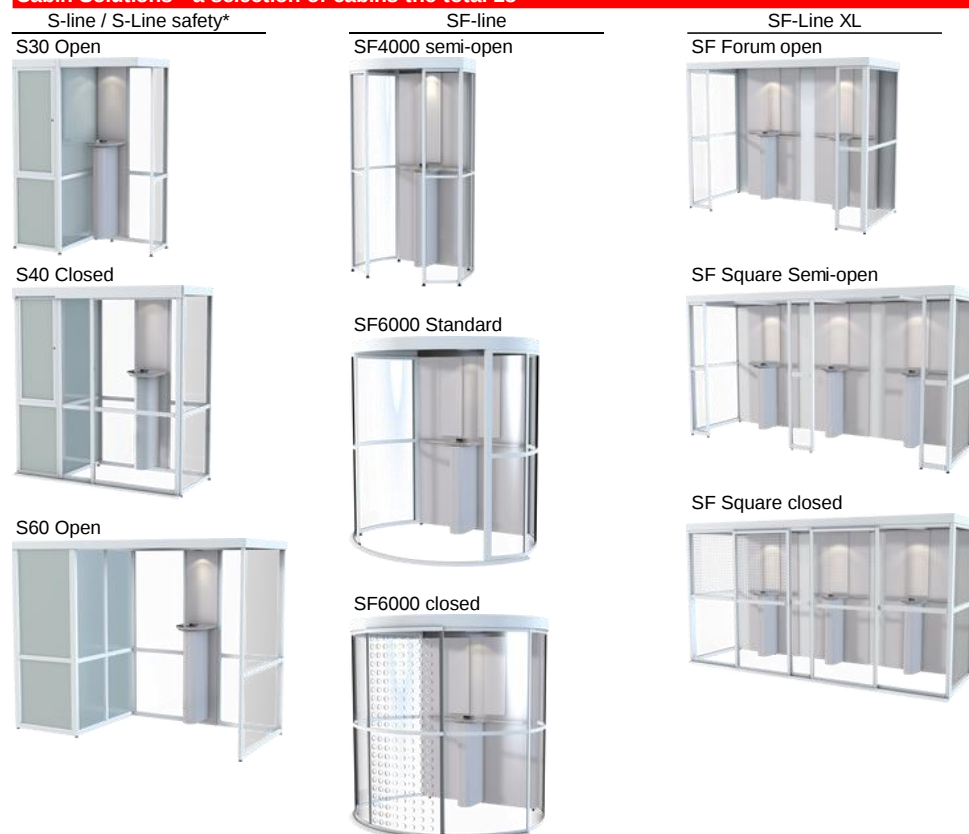
Cabin solutions is the largest segment, with SEK 320m in net sales (LTM), accounting for nearly 75% of QleanAir's net sales. The segment has grown at 9% organic sales CAGR over the last 5 years and is very profitable – posting gross margins of around 70%, we estimate.

The segment is developing, producing (outsourced), and selling smoke cabins in various sizes and specifications capable of handling (filtrate/clean the air) smoke and other particles released in the smoking process. These cabins allow for a total reduction of harmful air particles and smell, and therefore allow for smokers to light up anywhere, as the cabins can be placed anywhere. The segment has seen rapid growth in Japan in recent years due to the Health promotion act, which prevents indoor smoking in public spaces, such as schools, restaurants and offices, to protect people from second-hand smoking.

The USPs of the products is very efficient filtration, easy to install, flexible, and allows for interaction. This is combined with an attractive rental model. Apart from handling the smoke released from the burning of tobacco, the box also allows for handling ash and cigarette butts through its patented technology – which completely removes the risk of fires being started inside of the ashtray.

Product offering

Cabin Solutions - a selection of cabins the total 18



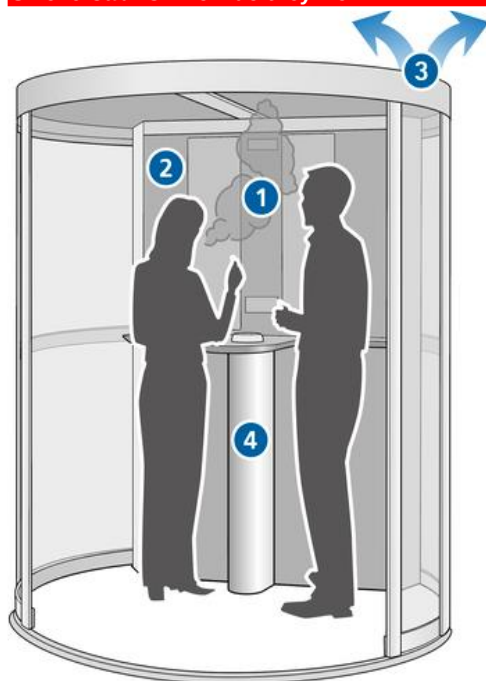
* S-line safety is based on the Open models of the S-line, using reinforced glass etc

Source: Company data, Redeye Research

All of QleanAir's cabins are very space-efficient and easy to install, as they are freestanding and only need a 230V power outlet. Therefore, they do not require any complex installation. As the cabins are open, non-smokers can interact with their smoking colleagues without risking their health or smell. It is also well worth mentioning that the air that has been cleaned

from the smoke is cleaner than the air already present in the room. Therefore, a smoke cabin can function as an air cleaner while in standby mode.

Smoke Cabins - How do they work?



1. Capturing the smoke

A smoke free environment can only be created if the polluted air is captured before it spreads. The smoking cabin makes this possible and the strategic placed air inlets, over the table, sends the polluted air into the powerful, multi-stage air filtration

2. Filtering of harmful gas and particles

Through QleanAir's patented, multi-stage filtration technology, the tobacco specific gases and particles are captured and removed from the air. From the moment of installation, QleanAir ensure that it lives up to its promises, which includes regular maintenance and lifetime performance guarantee.

3. Air outlet

When the air has been purified of harmful gases and particles, purified air is released back into the environment.

4. Fireproof ash handling system

QleanAir's unique, fireproof ash handling system (AHS) handles the disposal of ashes and cigarette ends. A valve solution keeps it airtight to avoid smoke residue common with traditional ashtrays.

Source: Company data, Redeye research

Customers:

Offices

The main customer segment for Cabin Solutions is offices, where the tenant/user of the office space is the customer. Smoke cabins are a great way of both protecting employees and keeping the indoor environment fresh. The cabins are placed near workplaces and in common areas. By having a smoke cabin, employees are protected, and efficiency improves due to shorter smoke breaks and cleaner air. We understand employer branding is also a driving force in the office segment.

QleanAir takes full responsibility for installation, service, monitoring, and maintenance – while offering performance guarantees – while the customers are charged a monthly fee - rather than a one-time investment. This offering is highly appreciated, we understand, and will likely reduce the barriers to introducing new products in any given office.

Industry and manufacturing

Industry and manufacturing refer to operations with strict hygiene and safety requirements, such as automotive, chemical plants, food, and marine segments. The cabins provide a healthier working environment and reduce interruption due to smoking breaks, which improve efficiency. Once again, the work environment is greatly improved by having smoke cabins, both for the operations and employees.

Public spaces

Public spaces accounted for a small part of Cabin Solution's sales in 2020. This segment includes installations in airports, train stations, cruise ships, hotels, restaurants, and casinos. This segment has been largely affected negatively by Covid, in our opinion, and we believe there could be growth opportunities once Covid restrictions are removed permanently, but also in Japan, where smoking is banned in these areas.

Market: Cabin Solutions

The cabin solutions segment primarily focus on the European market and Japan. The major markets in Europe are Germany and Austria. We understand the European market is mature due to smoking bans being made several years ago, as opposed to Japan, which has been introduced recently.

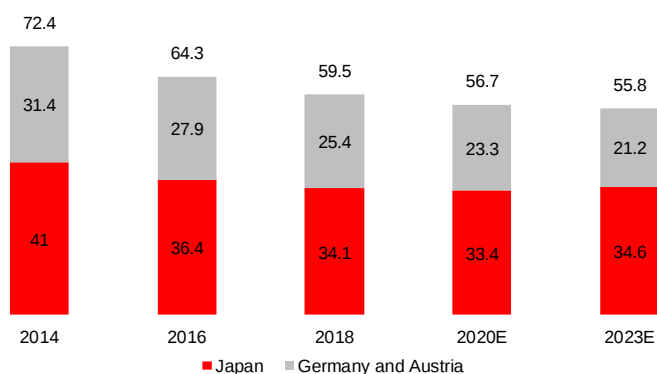
While we do not want to get into too much of the details of each smoke cabin model (and bury the reader with details), QleanAir offers a wide range of smoke cabins, both in terms of size, airflow capacity, no. of smokers, design, and price. Therefore, we consider the total addressable market to be as big as it can get for QleanAir. The broad offering is also valuable when a specific customer demands several cabins of various sizes and design. For instance, at a hospital, one type of smoke cabin could be placed in the reception, and a different kind for the personnel, requiring different demands. Therefore, becoming a one-stop-shop, especially combined with the other segments offered by QleanAir, becomes a unique selling point (USP).

It is somewhat challenging to assess a Total addressable market value (TAM), as there is limited market data. However, the unit potential is illustrated in a market report conducted by L.E.K (on behalf of QleanAir) in 2019.

The following charts show main markets, Germany and Japan, hold a total potential of around 55 000 units. We understand the historical value of a 3-year QleanAir contract has averaged SEK 150 000. Using an average unit price of SEK 50 000 (rental price per annum), the TAM should be worth SEK 2.75bn p.a. – a very sizable market. We wish to highlight this is the theoretical potential market – not the actual installed market.

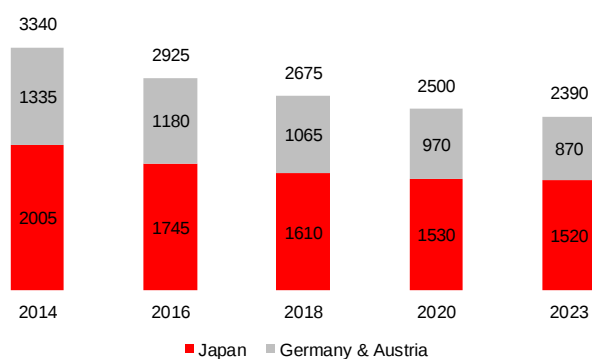
We believe QleanAir currently has installed 4 000 - 5 000 units on these markets – implying a potential market share of nearly 10%. However, when looking at the estimated actual installed base, QleanAir seems to hold a market share exceeding 50%.

Total adressable market in Germany, Austria and Japan (000s units)



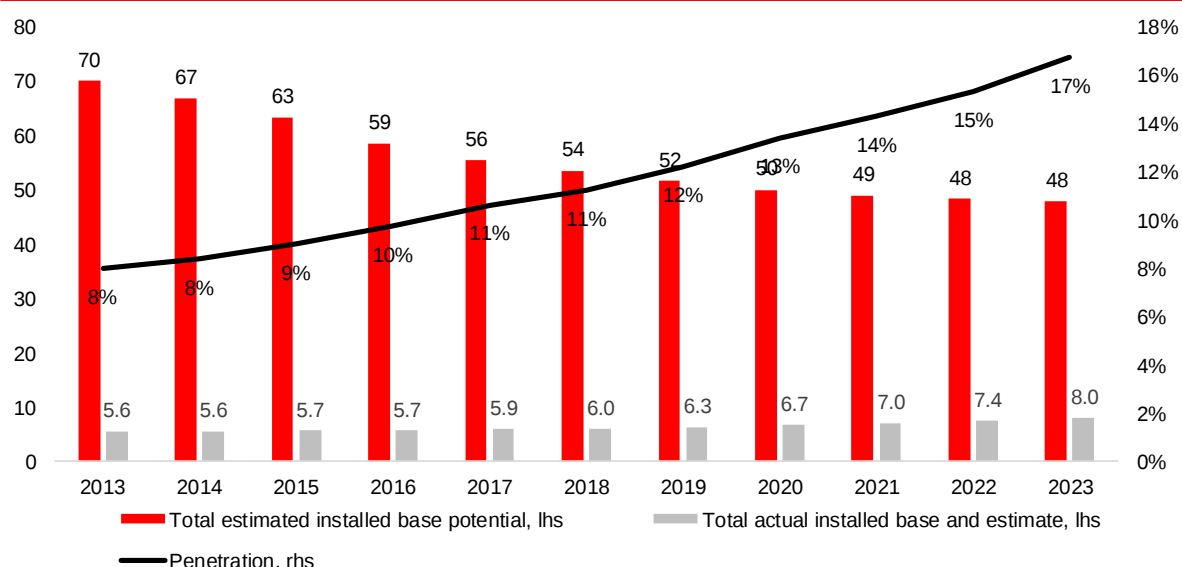
Source: L.E.K. Consulting GmbH, Redeye Research

Total adressable market in Germany, Austria and Japan (SEKm)



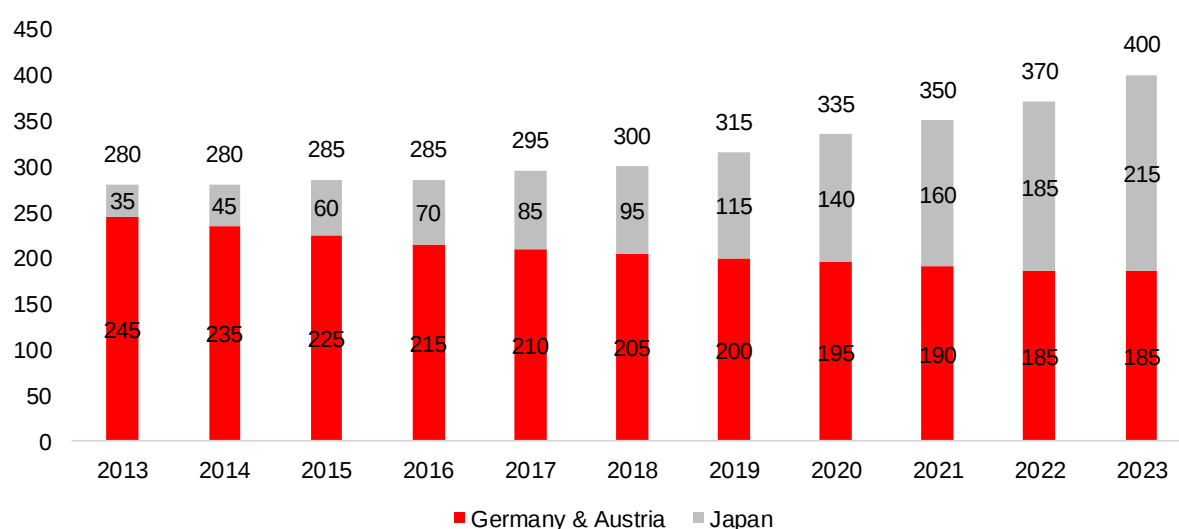
Source: L.E.K. Consulting GmbH, Redeye Research

What we find more interesting than the market size itself is that penetration is increasing. The total addressable market is shrinking due to declining smoking prevalence. However, as the penetration increases, this effect is really dampened, and one can see that the installed base is expected to increase rather than shrink. We are therefore of the opinion that Cabin Solutions is wrongly perceived as a dull and dying market. Furthermore, as illustrated in the charts, the penetration is only 11% in 2018, increasing to 17% in 2023. There is still plenty of upside in terms of penetration rates. Between 2018-2023, the 5-year CAGR corresponds to 6%.

Total estimated installed base potential vs actual, Germany, Austria & Japan (000s units)

Source: L.E.K. Consulting GmbH, Redeye Research

Using the same annual rental fee of SEK 50 000 per cabin, we derive a market value of the estimated current installed base of SEK 350m in Germany, Austria and Japan. Going forward, we expect the market to increase, as illustrated in the following chart. This is driven by the expected growth in Japan.

Total market value for installed cabin solutions in Germany, Austria and Japan 2013-2023, SEKm

Source: L.E.K. Consulting GmbH, Redeye Research

It is hard to deny that the market should decline seen over a very long time (several decades), as it is correlated to smoking prevalence, which is declining. As smoking is bad for human health (both for the smoker and second-hand smokers), governments prohibit smoking. The following chart illustrates smoking prevalence throughout the globe, showing smoking is still very common. Furthermore, the very first step for a government to prohibit smoking is to direct smokers to a specific area instead of making it illegal to smoke.

Current tobacco smoking prevalence, age-standardized average, %												
WHO region	Estimated prevalence (% / millions)								Projected prevalence (% / millions)			
	2000		2005		2010		2015		2020		2025	
Both sexes												
Global	25.7%	1082	23.4%	1084	21.5%	1081	19.8%	1074	18.4%	1068	17.1%	1058
African	14.2%	49	12.9%	51	11.8%	54	10.8%	57	10.0%	62	9.3%	67
Americas	27.2%	161	23.3%	150	20.1%	139	17.4%	129	15.0%	118	13.1%	107
Eastern Mediterranean	20.8%	57	19.4%	63	18.3%	70	17.4%	77	16.9%	84	16.3%	91
European	34.0%	226	31.6%	216	29.2%	204	27.3%	192	25.5%	181	24.0%	169
South-East Asian	21.4%	211	19.2%	215	17.8%	221	16.7%	230	15.9%	241	15.4%	252
Western Pacific	29.2%	378	27.6%	390	26.0%	392	24.6%	389	23.3%	384	22.1%	373
Males												
Global	40.9%	862	38.3%	885	35.8%	900	33.5%	909	31.5%	917	29.7%	920
African	24.1%	42	22.3%	45	20.7%	48	19.4%	51	18.2%	56	17.1%	61
Americas	33.5%	98	29.1%	92	25.3%	86	22.2%	81	19.4%	75	17.0%	69
Eastern Mediterranean	35.3%	49	34.1%	56	33.1%	64	32.3%	71	31.8%	79	31.2%	87
European	45.5%	149	41.7%	141	38.2%	133	35.2%	124	32.4%	115	29.9%	106
South-East Asian	34.5%	176	33.2%	189	32.2%	203	31.3%	217	30.5%	231	29.9%	245
Western Pacific	53.7%	349	51.2%	362	48.6%	366	46.1%	365	44.0%	361	41.9%	352
Females												
Global	10.5%	219	8.6%	199	7.2%	181	6.1%	165	5.2%	151	4.5%	138
African	4.3%	7	3.5%	7	2.8%	6	2.3%	6	1.9%	6	1.6%	6
Americas	20.9%	63	17.6%	58	14.9%	53	12.6%	48	10.7%	43	9.1%	38
Eastern Mediterranean	6.3%	8	4.6%	7	3.4%	6	2.6%	5	1.9%	4	1.4%	4
European	22.5%	76	21.5%	75	20.2%	72	19.3%	69	18.6%	66	18.0%	63
South-East Asian	8.4%	36	5.2%	25	3.3%	18	2.1%	13	1.3%	10	0.9%	7
Western Pacific	4.7%	29	4.0%	28	3.5%	26	3.0%	24	2.6%	23	2.3%	21

Source: WHO, Redeye Research

Cigarettes are designed to be as addictive as possible to generate sales. Therefore, it is very difficult to stop smoking, and thus the prevalence won't decline fast. Smoke cabins can be an attractive solution to protect second-hand smokers from toxic smoke.

The healthcare act in Japan is an excellent example of implementing this. The market for cabin solutions is booming there, and given QleanAir's revenue model, revenues have great chances of recurring until there is no demand left in the market. Furthermore, as renewal rates are >75%, the segment should see increasing margins, as renewed contracts positively affect the gross margin (we estimate 75% vs. 65% for a first-time contract). We believe the segment should be considered a cash cow with attractive growth prospects.

Sweden, one of the countries with the most aggressive legislation and smoking bans globally, has a very low prevalence. Still, QleanAir is generating revenues (5-10% of sales) from the segment in Sweden - in a country with low prevalence and low population. Even if the market is considered mature, Europe has significant opportunities, as both the population and prevalence are higher.

We believe the market outlook is exciting, rather than being concerned about possible legislation, as, in most of the world, people are still used to indoor smoking. Smoke cabins, therefore, becomes a good solution for implementing smoke restriction and further protecting people from second-hand smoking.

All in all, we see an opportunity for the cabin solutions segment. And it is important to note that QleanAir profits do not come from smoking prevalence but from preventing second-hand smoking - which comes from increased awareness and legislation - where we see a long

runway of growth in QleanAir's markets. Therefore, a declining prevalence is not an issue but rather a signal of increased awareness in our view.

It is also evident that the declining prevalence is not due to people stop smoking. It is because fewer people start smoking. Therefore, an ageing population is, however, another factor that plays in the hands of QleanAir.

The health promotion act in Japan

In April 2020, a new smoking law, *the health promotion act*, came into force. The law prohibits all indoor smoking in public spaces and workplaces to protect people from second-hand smoking. The exceptions are designated places where exposure to second-hand smoking can be controlled, such as private homes and hotel rooms. For public authorities, schools, and hospitals, smoking areas may only be established outdoors. Public areas which will permit the establishment of smoking areas indoors include, among others, offices and restaurants.

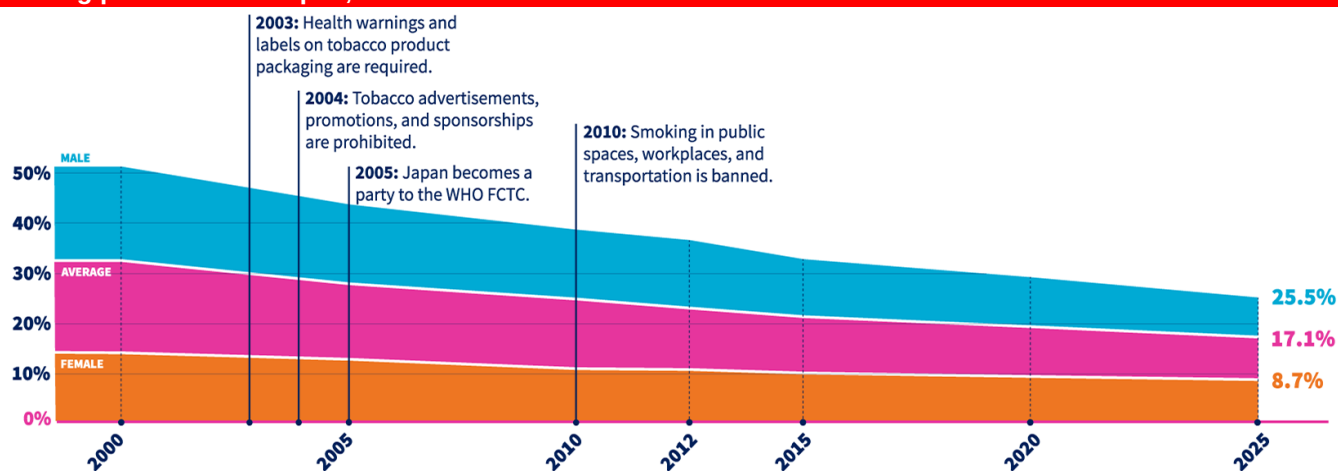
Many cities prohibit smoking on the streets in busy districts except in designated smoking areas and public spaces such as malls, hospitals, and convenience stores. Smoking is also prohibited on the platforms of most major railway stations except in designated smoking rooms

Smoking areas will only be allowed in places where measures to combat passive smoking have been put in place, i.e., setting up closed and secure cabins. The cabins must meet technical standards to prevent tobacco smoke from being spread, which includes specifications regarding walls, ceilings, and airflow of the cabin etc.

During a 5-year period, there will be lower requirements imposed on premises that have difficulty establishing the required smoking area according to general standards due to circumstances beyond their control. These will comply with legislation by establishing cabins.

The law will be evaluated after five years, and QleanAir's assessment is that all its cabins meet the standards.

Smoking prevalence in Japan, 2000-2025e



Source: FSFW, Redeye Research

Future growth prospects

We consider Japan to hold great growth opportunities ahead. We believe the market is still in its inception and that the demand for cabin solutions is set to increase for a long period of time. This is further supported by the market forecast made by L.E.K in 2019, where one can see market penetration increasing significantly in Japan. In 2019, QleanAir estimated it had a 65% market share, and we believe the company will be able to use its solid brand to expand in the region – and exploit cross-selling opportunities in facility solutions. We believe all these figures have been temporarily negatively affected by covid due to restrictions and lower activity in the society. But we believe the underlying demand has improved due to Covid, as awareness has increased, and that the pent-up demand will be materialised once restrictions are eased.

Other potential markets could be China, and Korea, where smoking prevalence is very high, and there are still smoking bans to be introduced. This is not a near-term growth prospect of QleanAir as of now, however.

Competition

We have investigated the potential competitors of QleanAir in the field of Cabin Solutions. QleanAir has outlined its main competitors (from its prospect in dec. 2019), illustrated in the table. What struck us the most is that even if a company offers smoke cabins, it lacks the wide range that QleanAir offers. We also believe the products were less attractive to the observer's eye – which we consider an important point, as smoke cabins often should be in modern offices where it acts as a part of the company's branding.

Another point is that the competitors' product offering does not hold the same range in terms of capacity. This means that if a potential customer wants different sizes for its organisation, due to space restrictions and a different number of users, it will have to contract multiple cabins suppliers – as it can't offer the full range. We believe this is very positive for QleanAir.

Overview: Cabin solutions competitors											
Company	HQ	Revenue 2020, SEKm	FTEs	Product Offering				Sector focus			
				Cabins	Tower	Table	Ceiling	Office		Hospitality	Industry
								Premium	Regular		
 QleanAir SCANDINAVIA		493	108	✓	✓	✗	✓				
Smoke Solution 		1	2	✓	✗	✗	✗				
		550	202	✓	✗	✗	✗				
 TORNEX		121 (2017)		✓	✓	✓	✓				

Product Offering ✓ Offered (✓) Partially offered ✗ Not offered

Focus Strong Medium Weak n.a.

Source: Company Data, Redeye Research

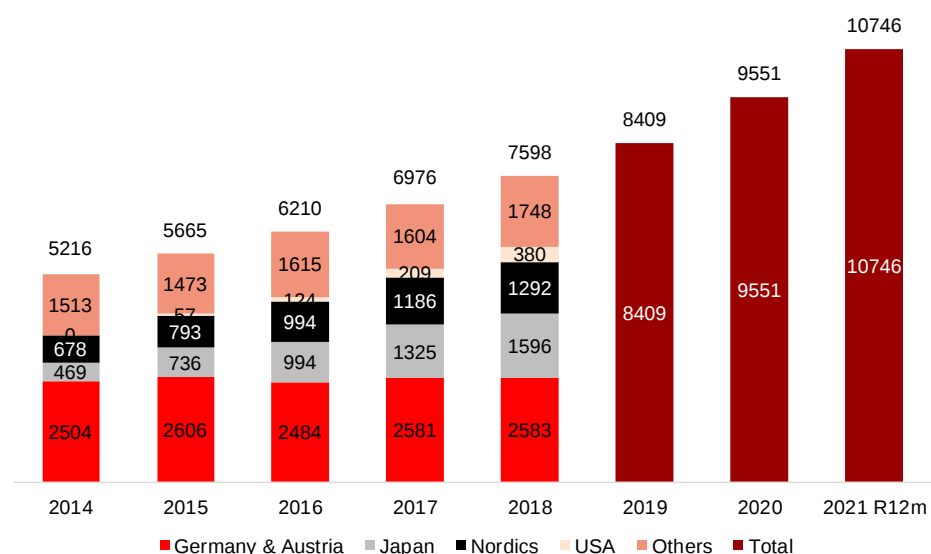
We note that competitors do not have the same wide offering as QleanAir – both in terms of the business segments and specifications. They don't seem to offer the same attractive package as QleanAir – with its full responsibility and performance-based guarantees – or the attractive financing solution, allowing for limited investments by the customer.

QleanAir has a large focus on offices, both premium and regular ones. Here it has limited competition, apart from Tornex, which we deem the main competitor in Japan. We believe many of the customers might be deciding between these two as a supplier. We wish to highlight that QleanAir has a sales force of 20 people in Japan, so it can be aggressive in processing potential customers. We find this very positive, as it could bear fruits both now and in the future. Also, QleanAir primarily targets premium offices, which Tornex does not to the same extent, and here employer branding comes into play – which should benefit QleanAir.

QleanAir also offers air cleaning products, which Tornex does not. As we understand it, many of the customers QleanAir approaches are looking to install products from both segments – which is very favourable for QleanAir. Regarding the sales figures, it is worth mentioning that Asecos and Tornex includes other segments than Smoke cabins, which inflates the numbers.

However, in Europe, we deem the competition to be limited, and new entrants are not something we count on – as the market is considered very mature. However, the customer base QleanAir has built should prove to be very valuable, as air cleaning solutions demand is spiking post covid.

Development of installed base per geography, units. 7-year CAGR of 11%

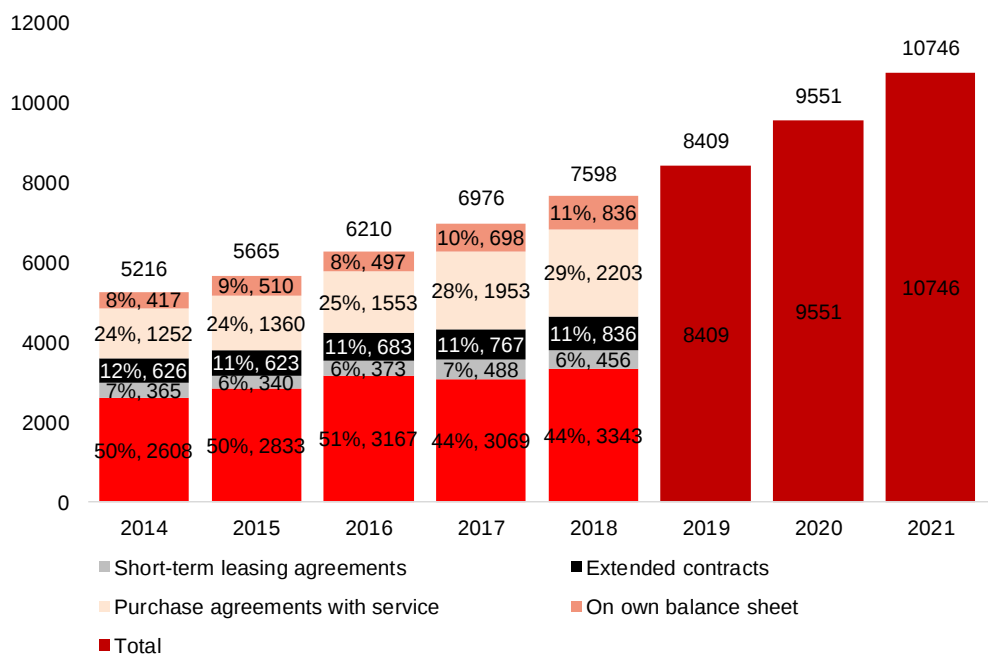


Source: Company data, Redeye Research

Germany and Austria are the cornerstones of installed units, and the vast majority of this is addressable to cabin solutions. It also illustrates how stable and mature the market is. It is also very clear how rapidly installed units in Japan has grown. From 469 in 2014 to 1596 in 2018 – posting an impressive 4-year CAGR of roughly 35%. We understand cabin solutions have driven this. This is fortunate for both Cabin solutions and Facility solutions, as future cross-selling opportunities has increased due to the growing customer base.

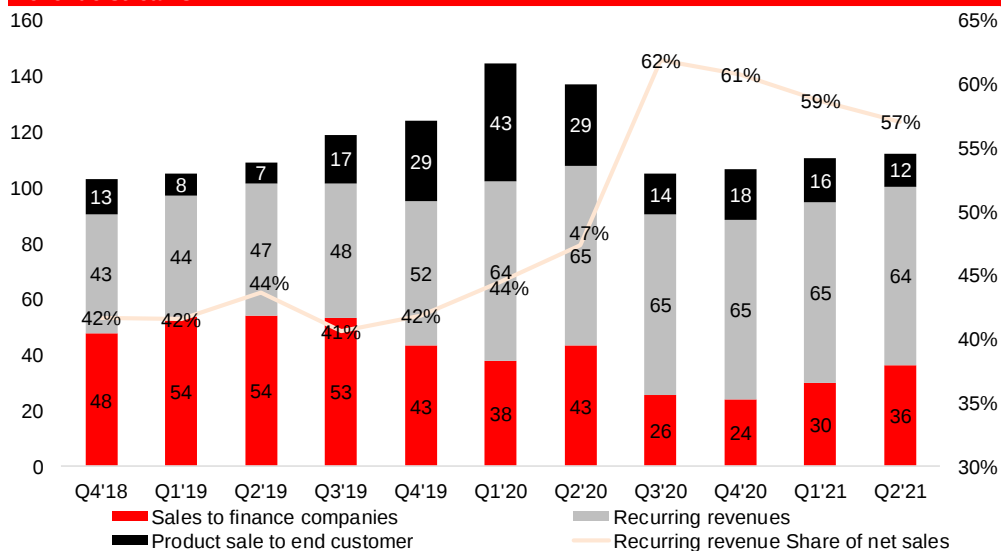
Given QleanAir's revenue model, 57% of sales are recurring. Combined with the market in Europe for cabin solutions, we deem this segment to be a cash cow combined with growth prospects in Japan.

Development of installed base per type of contract, %-share & no. of units



Source: Company data, Redeye Research

Revenue streams



Source: Company data, Redeye Research

Segment: Facility Solutions

Facility solutions account for roughly 15% of QleanAir's net sales. The segment was launched in 2012 due to QleanAir seeing great opportunities in the area, capitalising on its IP and know-how, and enabling cross-selling. The segment has roughly SEK 65m in net sales (LTM) and gross margins of 70% (Redeye estimate) and has posted a sales CAGR of 18% during 2016-2020.

The segment sells standalone air cleaners suitable for various end customers ranging from offices and healthcare – to the food industry, manufacturing, and logistics. The products are used to improve the air quality in specific areas, reduce pollution, improve working conditions for people, and improve production lines and food quality.

The USP is the fact that QleanAir originates from Cabin solutions, cleaning smoke – which is a challenging trait to copy. This know-how improves the products developed for facility solutions, which differentiates QleanAir from its peers. Furthermore, QleanAir offers and guarantees hassle-free air quality over time, ensuring function and efficient purification over time – as it guarantees performance, installation, servicing, and filter changes. The products are installed independently of the ventilation system and can be moved quickly if necessary. The products are also very silent while in operating mode.

AirCleaners - a variety of the total 25 combinations



Source: Company data, Redeye Research

A wide product offering

QleanAir offers air cleaners in the segments: smaller air cleaners, larger air cleaners, air cleaners for the food industry, and air cleaners for hospital and health environment

QleanAir offers around 20 different setups for its air cleaners in the series FS 30, High, Low, FS 70 and FS 90. The air capacity range spans from 500 - 10 000 m³ per hour. Decibel levels are between 25-45 db. All air cleaners are using mechanical filtration. There are different options for filters, such as E11 and HEPA 14. There is also the option of activated carbon, which reduce odours. All air cleaners are compatible with HEPA-14. We also find very positive and encouraging that at least 6 models were released during 2020, partly as a response to covid and the increasing demand. This shows, in our view, the flexibility and humility QleanAir shows, listening to its customers' wants and needs, transforming them into products. The models were all designed and released under 6 months which is truly a sign of power.

QleanAir offers a total of 25 different facility solutions combinations. There is the FS 30, FS 70 and the FS 90 - with various filters and air flows. Also, there is the FS low and High series for ceiling mounting. Through its unique offering, QleanAir covers all thinkable industries and offices, handling particles present in industries and offices and different sizes of rooms.

QleanAir also offers improved smoking-room solutions, where air cleaners and flammable ashtrays can be installed. We find this positive, as there are many smoking rooms throughout QleanAir's markets. Smoking rooms often suffer from bad air quality, as bad ventilation and lack of air circulation leave hazardous gases and particles from tobacco smoke in the room. Using QleanAir's products, with a HEPA and carbon filters system, the air that is captured is returned to the smoking-room, filtered and clean. We believe the comprehensive and broad offering of QleanAir, building on the same products and technologies, really offer great cross-selling opportunities. At the same time, it should provide sourcing synergies, benefitting gross margins.

Facility solutions provide air cleaning in existing facilities by either diluting its contaminants, capturing them at the source, or providing clean air for specific purposes. Typical application areas range from automotive, food, and general production industry, warehouse logistics, smoking rooms to waiting rooms and infection wards in hospitals

Customers:

QleanAir has 5 customer segments: The food industry, the logistics & manufacturing industry, health care, schools, and offices. The latter 3 were established in 2020.

Logistics

The logistics market includes logistics, distribution and freight companies that conduct a large part of their operations in large premises. Logistics premises tend to contain dust and other particles that are unhealthy for staff to inhale. QleanAir has therefore provided a variety of these premises with standalone solutions that clean the air. In addition to protecting the personnel working in these premises from contaminated air, they also keep products and machines clean of dust and other particles.

Benefits for logistics / producing customers

					
Healthier environment Easier to work and breathe in/improves working conditions	Cleaner Inventory Significantly less floating dust particles on goods/parcels/packages	Helps reduce downtime Fewer interruptions in processes	Less cleaning Having less dust and dirt in the air and on surfaces means less time dusting, as well as significantly reduced allergies caused by dust mites and particles in the air and on surfaces.	Lower operating costs Fewer clogs and maintenance. Our systems promote a smart airflow, which helps regulate temperature and can reduce energy bills, due to heating/cooling.	Flexible solution Independent on existing HVAC system, easily moved and adopted to changing requirements.

Source: Company data, Redeye Research

Manufacturing industry

QleanAir's air cleaning solutions improve the working environment, contribute to cleaner processes, and extend the life of sensitive tools and machines in the manufacturing industry, such as vehicle manufacturers and their direct subcontractors.

Food industry

The food market consists of companies with premises for the manufacture and storage of food products that require good air quality to ensure food quality. The standalone solutions offered by QleanAir protect food from pollution and contamination as bacteria and mould. The working environment for those working on handling the production and logistics of food products is also improved

Benefits for the food industry			
			
Protects people Adds a necessary step in protecting people from indoor airborne contamination, like dust, flour, and powders created in the work environment.	Cleaning optimised Adheres to recommendations for cleaning and disinfection procedures.	Improves operations Significantly reduces the probability of production halts.	Reduces risk Helps control the risk of airborne contamination.
			
Resistance to corrosion Designed with food graded materials, resistant to most common chemicals, i.e. detergents and disinfectants.	Controls hygiene Significantly reduces the risk of contamination of food products and packaging materials from airborne particles, like dust, microbiological contamination, hair, mold, etc.	Flexible solution Can be used in a wide spectra of application areas i.e., prep area, manufacturing, packaging, and storage of raw materials and finished food/beverage products.	Improved air quality Reduces contamination levels and helps to comply with local air quality regulations.

Source: Company data, Redeye Research

Health care

From the beginning of the pandemic, QleanAir began to develop new solutions to reduce virus concentration in the air and contribute to safer and more secure working environments for healthcare professionals. As a result, QleanAir was trusted to deliver its latest innovation FS30 – a customised, efficient air cleaner that provides HEPA-cleaned air at a very low noise level – to Karolinska University Hospital, among others.

Offices

Creating healthy working environments will be a strategic issue for attracting people back to their workplaces. QleanAir already sells Cabin solutions in the office market, but 2020 also meant a growing demand for facility solutions from office customers.

Benefits for hospitals, schools, offices

					
Health and productivity Good air quality affects the people's health, well-being, and ability to perform in both long and short term.	Improved air quality Reduced levels of particle levels in the air like virus, bacteria, pollen, dust, mold etc.	Helps reduce downtime Large volumes of filtered air without disturbing your concentration, conversation, or sleep.	Guaranteed quality over time Mechanical filtration, monitored air flow and regular service ensures constant air quality over time	Increased attractiveness Cleaner, safer premises will have a positive effect on your attractiveness externally.	Flexible and independent Small footprint, easy to place and move. Independent of existing HVAC systems.

Source: Company data, Redeye Research

Schools

Students and teachers mingle closely together in school premises, while ventilation and airing possibilities are often substandard, affecting air quality. During the year, QleanAir delivered its first Facility solutions to schools. QleanAir's air cleaning solutions with HEPA 14 filters reduce the concentration of airborne particles and help create a better working environment and reduce the risk of spreading infection.

Filtering technology

Air cleaners - How do they work?



1. Intake – Captures pollution

The FS 30's intake is located on the front on three sides for unobstructed and optimal air intake. The intake is protected by a front to optimize the soundscape in the room.

2. Filtration - filter out harmful gases and particles

With the help of two-step mechanical filtration, even the smallest particles and airborne pollutants are captured and removed from the air. An optional carbon filter is also available, which is highly effective against odors or gases typically present in office environments.

3. Exhaust - Purified air is returned to the environment

After the air has been cleaned of harmful particles and gases, it is returned back into the room. The exhaust, located on top of the air purifier, is adjustable for optimal effect.

Source: Company data, Redeye research

Air cleaning – not ventilation

Air cleaning (air filtration) is often mistaken for ventilation. The two areas are very different, even though they both handle air. Air cleaning filters the air for harmful particles and thus cleans the air. It captures the air in the room and blows out/exhausts cleaned air, and the air gets cleaned by over 99%.

Ventilation does not filter the air for particles, as it only exchanges inside and outside air. If ventilation is bad, oxygen levels become low, and contaminants occur. This has negative health effects. Therefore, all buildings have ventilation and have different sets of requirements it needs to meet.

As today's new builds have tough energy efficiency requirements, buildings want to keep and recycle air for as long as possible, as it often has a higher temperature than outside. If 1 cubic meter of air goes out of the system (i.e. is released outside), 1 cubic meter needs to enter the system. By doing this, cold and fresh air needs to be heated, which costs money, even if heat exchangers dampen the effect.

Air Cleaners can help to prevent the spreading of Covid-19

According to WHO, Covid-19 is mainly spread by direct contact or droplets/aerosols and less commonly spread by indirect contact from contaminated surfaces.

Droplet infection is not an airborne infection, even though the droplets are in the air for a certain period. If the droplets can dry up into microscopically small grains, the virus can travel much longer distances in the air, significantly increasing the risk of spread and inhalation. This is called airborne infection. Also, the term aerosol infection is also used - which is a term for small particles that are atomised in a gas - usually air. Thus, both droplet infection and airborne infection can be included when using the term aerosol infection

The size of aerosols and covid is estimated to be at most 0.12-0.16 μm - which can be encapsulated in droplets (10 μm) that spread when we cough or sneeze and in the aerosols (1 μm) in our exhaled air

Air cleaners can prevent aerosol transmission of the covid virus.

As we have mentioned before, built-in ventilation is not always effective enough to provide healthy air quality and control the spread of airborne microorganisms. Equipped with adequate filters and correctly dimensioned, air cleaners are an efficient solution for reducing the concentration of airborne particles, viruses, and bacteria. A HEPA 14 has a filtration efficiency of at least 99.995 for particles of size 0.1-0.2 μm , which is in the range for Covid-19. The orders QleanAir has received from hospitals and schools to prevent viruses from spreading further support this.

In older buildings, fresh air is provided via window ventilation (no filtration) or a ventilation system using low-grade filtration. More modern facilities are typically equipped with a ventilation system and filters of higher grades (such as ePM 2,5, which cannot filter the sizes of covid particles. Usually, it is difficult to increase the filtration or airflow in the ventilation due to its construction. It is also difficult to change to a HEPA 13/14 due to its density - which causes too much resistance. This is also one of the primary reasons why a standalone air cleaner makes perfect sense and complements the ventilation system.

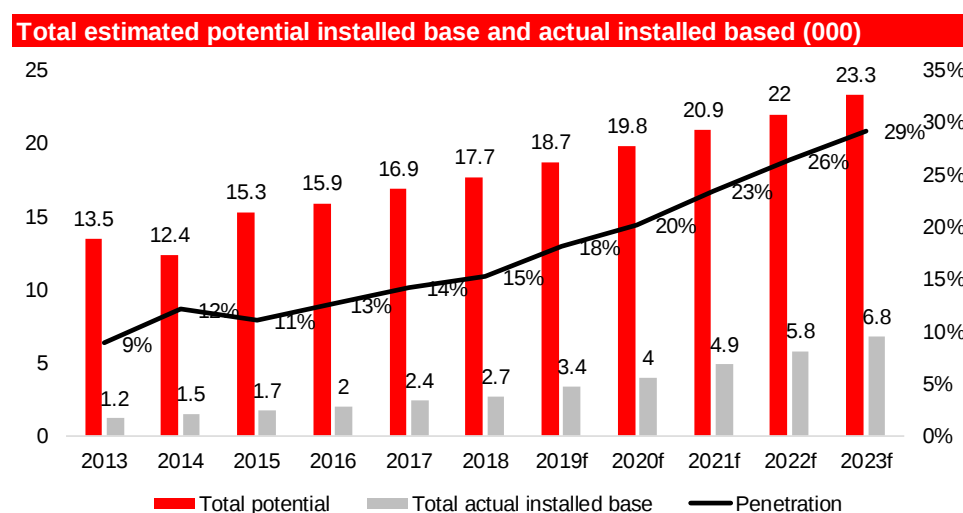
Market: Facility Solutions

While there isn't any legislation in this segment, as opposed to smoke cabins and cleanrooms, we see the increasing awareness as a powerful trend. We are now seeing schools, particularly in Germany, ordering air cleaners to prevent the spreading of viruses and due to the positive health effects – which improves focus and efficiency among people, spurring productivity. QleanAir also sees demand from hospitals, such as Karolinska, demanding flexible, small, and quiet air cleaners with the ability to filter virus particles.

We believe the trend for clean air has been prospering and has been further spurred by Covid due to increased awareness of how bacteria and viruses spread. Also, the benefits of clean air for human health, such as improved health, wellbeing and efficiency, is another selling point. In various production lines, significant efficiency and cost improvements can be made. We believe further awareness will continue drive demand.

The main geographies that QleanAir is targeting are The Nordics, Germany, and Japan. In the chart below, one can find L.E.K.'s estimated addressable market (000s units) in the Nordics, Germany, and Austria. It is well worth pointing out that the study only refers to the logistics, food, and automotive industries. We, therefore, believe the true market is considerably bigger when factoring in public spaces, offices, hospitals and schools. This is also supported by the reported order volumes from Karolinska and schools in Germany. Just for illustrative purposes, there are 80m children aged 4-18 in Europe. Suppose there goes 1 classroom on every 40 children, the potential TAM goes to 2m air cleaners – for a potential value of SEK 40bn p.a. using SEK 20 000 per year.

The total potential is growing, and so is the penetrating – resulting in a substantial current market CAGR of 20% for the period 2018-2023. Even if the estimated period only runs until 2023, we believe the runway should be far longer than that. It is also worth highlighting that these figures were assessed before Covid. We believe these figures should be even higher if estimated today.



Source: L.E.K. Consulting GmbH, Redeye Research

We understand the historical 3-year contract has been worth SEK 60 000. Using an average annual rental price of SEK 20 000 per air cleaner, the total current market value is SEK 100m in 2020, for a total potential of SEK 400m. As previously mentioned, it is important to note these figures were published before Covid. We believe the figures should have spiked during 2020 and 2021 and should continue to grow.

The pattern is very similar to the one in Cabin solutions, where we see an increasing penetration. The main difference from this market to Cabin solutions is that the underlying potential market is also growing, while the penetration is also increasing. All in all, this results in an underlying potential market CAGR of around 6% and an installed base CAGR of 20%.

Competition

Overview: Facility solutions competitors										
Company	HQ	FTEs	Revenue 2020, SEKm		Industry focus				Regional focus	
			Total	FS	Logistics	Food	Auto-motive	Other	DE/AU	Nordics
 QleanAir SCANDINAVIA		108	493		✓✓	✓✓	✓✓	✓		
		4800	9200		✓✓	✓✓	✓	✓		
		3360	6170		✓✓	✓	✗	✓		
		202	550		✗	✗	✗	✓		
 aeropur® mobile Entstaubungsgeräte		26	no data		✓	✗	✗	✓		
		9	20		✓	✓	✗	✓		

Product Offering ✓ Offered ✗ Offered

Focus	Strong	Medium	Limited
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Source: Company Data, Redeye Research

We understand that competition is higher in this segment than cabin solutions, making sense as this is a faster-growing market. Camfil is the clear market leader in our view and has some SEK 1bn in sales. It is not only selling air cleaners, however, but also different types of filters for various industries.

On the back of all this, one can see that the companies are all targeting the same geographies. We do believe that QleanAir holds a more interesting position in Japan than the rest, however.

We do not believe QleanAir will feel fierce competition as the market is growing rapidly. Also, QleanAir can capitalise on its broad customer base in Cabin solutions, which is hard for competitors to replicate. It is not clear if the stated competitors offer leasing or performance guarantee commitments as QleanAir does – which we consider the main selling point, as customers demand OPEX spending rather than CAPEX and want *clean air as a service*.

Segment: Room solutions

Room solutions account for roughly 10% of QleanAir's net sales. The segment was launched in 2013 because of QleanAir seeing great opportunities in the segment. The segment has nearly SEK 50m in net sales (LTM) and gross margins of 50-60% (Redeye estimate) and has posted a sales CAGR of 37% during 2016-2020 – however, coming from low numbers.

The segment offers modular cleanroom, and its USP is in modular instalments, combined with its high quality, USP legislation compliancy, and performance guarantee commitments. Typically, cleanrooms are stick-built, requiring many suppliers, and it does not allow the company to expand a room if needed. The segment is seeing increasing demand and thoroughness as the medical industry increases its requirements for cleanrooms.

Room solutions' offering			
			
Installation	Monitoring	Maintenance	Compliance
Design, delivery, and installation with start and control of the function "As Built" and "At Rest".	Free regular software upgrade of the central monitoring software.	Regular preventive maintenance and function control of products to ensure full functionality and to ensure full filter efficiency, and performance.	Regular audits to ensure regulatory compliance with ISO and USP certification standards.

Source: Company data, Redeye Research

Cleanrooms are utilised as a part of specialised industrial production or scientific research - which includes manufacturing of pharmaceutical items, integrated circuits, LCD, OLED displays etc. The cleanrooms are designed to maintain extremely low levels of particulates, such as dust, airborne organisms, or vaporised particles.

Product offering Cabin solutions

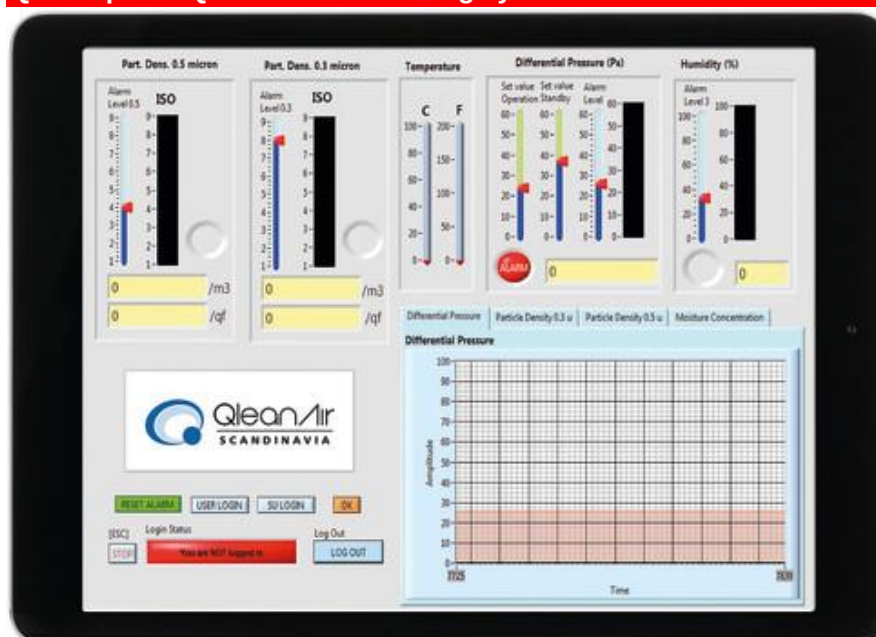


Source: Company data, Redeye Research

The size of a cleanroom is very individual. They can range from 10 m² to 1000s m². One of the main techniques of ensuring low air contamination is to ensure that air can circulate correctly and be filtered. This is where QleanAir's expertise primarily comes into play.

QleanSpace (QleanAir's monitoring system) constantly monitors the level of airborne particles, pressure levels, temperature, and humidity - and makes it easily readable by the staff. Warning signals are issued at pre-set levels when approaching the cleanroom rating limits.

QleanSpace: QleanAir's monitoring system



Source: Company data, Redeye Research

Stick-built Cleanroom vs QleanAir adaptable cleanroom		
Stick-built Cleanroom	VS.	QleanAir adaptable cleanroom
When you finish a stick-built room and you have subsequent growth or need to place new automation or equipment inside, it is not usually feasible to think about expanding it. Expansion entails taking the facility offline and starting a new construction project	 Scalability / flexibility 	QleanSpace will help you transform your existing pharmacy environment into a fully compliant USP <797/800> certified cleanroom with a full guarantee to certify and meet USP and Federal requirements. QleanSpace's team of professionals work with you to design, deliver, install, and maintain your new cleanroom and can be virtually built anywhere in a short period of time and is highly customizable to your own specifications. Our innovative Panel and nonporous materials increase cleanliness and visibility into work areas and offers continuous monitoring of airborne particles, air pressure, temperature, and humidity along with data recording and alarms.
Not feasible	 Relocatability 	QleanSpace can be made smaller/larger and reconstructed at a new space entirely with ease.
Being complicated construction projects, these rooms bring high cost in both time and construction management to build, and considerable risk if any important factor is overlooked. Depreciation schedule is very long.	 Affordability 	QleanSpace rooms are cost-effective and can be leased or purchased to meet your financial needs. "Pay for what you need now and expand later when future needs change". We take the guesswork out of affordability and performance
Ability to Meet Regulatory Requirements – is quite high, when you've designed and built it perfectly taking in account future calculations, leaving a lot of guess work.	 Compliance to Regulatory 	QleanSpace has a successful track record in certification towards USP <797> regulatory standards. We offer regular performance audits to service, maintain, and document the cleanroom's performance giving you the peace of mind you require for patient and healthcare worker safety.

Source: Company data, Redeye research

QleanAir's cleanrooms are all compliant with USP 797 and USP 800. Apart from the USP directives, we believe there is great potential for QleanAir once it delivers its first cleanroom to a customer. We believe the customers are very picky and want to ensure the supplier meets all pre-set criteria. If QleanAir, in this case, manages to do so - the likelihood of future cleanrooms being installed in the same building being assigned to QleanAir. This is further supported by QleanAir's most significant cleanroom order to date, being the 6th consecutive from this customer

Also, QleanAir offers performance guarantee commitments, ensuring the standards that have been set out will be met – even in the future. If it is not fulfilling its requirements, QleanAir will compensate the customer significantly. Therefore, all risk is on QleanAir, a great selling point as the customer does not risk anything. And it also shows that QleanAir is confident it can deliver on what it intends to.

ISO standards

ISO standards define cleanrooms. Each ISO Class level is 10 times cleaner than the next lowest classification. Moving up one cleanroom class from an ISO Class 8 to an ISO Class 7 cleanroom requires nearly twice as much air. Air- filtration and conditioning is a significant factor in operating expenses. The total square footage, the number of filters needed, humidity, and air intake temperature, determine energy requirements. The efficiency of these systems directly relates to operating cost, and a 25% cost increase is standard for each step up in classification.

By comparison, the outdoor air in a typical urban area contains 35 000 000 particles per m³, in size range 0.5 μ m and bigger in measurement - equivalent to an ISO 9 cleanroom. In comparison, an ISO 1 cleanroom permits no particles in that size range and just 12 particles for each m³ of 0.3 μ m and smaller. It is therefore evident that it is extremely high requirements to be met to ensure a safe and clean room - and that it does not require much at all to contain it.

As illustrated in the table, each class up the ladder requires 10x better filtration.

Some cleanroom standards							
Class	maximum particles/m ³						FED STD 209E equivalent
	$\geq 0.1 \mu\text{m}$	$\geq 0.2 \mu\text{m}$	$\geq 0.3 \mu\text{m}$	$\geq 0.5 \mu\text{m}$	$\geq 1 \mu\text{m}$	$\geq 5 \mu\text{m}$	
ISO 1	10	2					
ISO 2	100	24	10	4			
ISO 3	1,000	237	102	35	8		Class 1
ISO 4	10,000	2,370	1,020	352	83		Class 10
ISO 5	100,000	23,700	10,200	3,520	832	29	Class 100
ISO 6	1,000,000	237,000	102,000	35,200	8,320	293	Class 1,000
ISO 7				352,000	83,200	2,930	Class 10,000
ISO 8				3,520,000	832,000	29,300	Class 100,000
ISO 9				35,200,000	8,320,000	293,000	Room Air

Source: Clean Air Technology, Redeye Research

Some cleanroom requirements – illustrates the complexity

The ambient outdoor air in a typical urban area contains 35,000,000 particles for each cubic meter in size range 0.5 μ m and bigger in measurement, equivalent to an ISO 9 cleanroom, while by comparison, an ISO 1 cleanroom permits no particles in that size range and just 12 particles for each cubic meter of 0.3 μ m and smaller.

Some criteria include fixed walls, a positive pressure of at least 0.02 inches water column (a unit for measuring pressure differential between two locations), minimum 30 air changes per hour of HEPA filtered supply air, the right temperature, proper humidity. The most common cleanroom types are ISO 5-9.

To meet cleanroom fundamentals:

- A large amount of HEPA air needs to be supplied at a low velocity at the ceiling and then remove the air with low return grilles to sweep out any particulates in the space.
- ISO 7 and 8 require a laminar airflow diffuser.
- The KAF (Kitchen axial fans) provides unidirectional airflow that does not cause turbulence and offers additional protection from bacterial shedding associated with personnel or surfaces in the space.
- Low wall returns are required for all the compounding areas to draw the air downward.
- Temperature and humidity must be monitored and documented for everyday compounding occurs.
- Compounding rooms must be equipped with a pressure monitoring system to notify occupants if spaces are within tolerance.
- Moreover, a cleanroom needs to be tested and certified every 6 months, where airflow testing, HEPA filter testing, total particulate count testing, are the most important ones.

It is very complex to meet all requirements, and understanding air cleaning is fundamental...

Market: Room Solutions

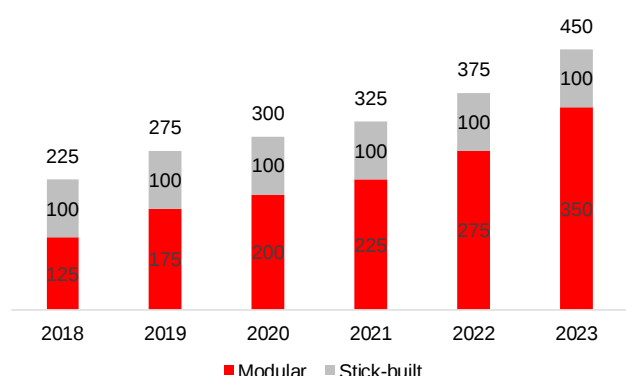
We believe the cleanroom market is very attractive, as several drivers are contributing to expected growth, and the product complexity is high. The pharmaceutical sector is expected to grow for many years to come, and so is the integrated circuit market. Therefore, one can see the underlying markets are growing. Also, several initiatives are spurring the demand for high-quality cleanrooms, as the requirements are becoming stricter. We understand QleanAir primarily offer high-quality cleanrooms, as opposed to lower required ones. We find this positive, as in this segment, there should be more possibilities to add value.

The USP 797/800 is partly a result of medication being contaminated with fatal outcomes - which has spurred the speed of the bill. Due to postponed cleanroom investments, we believe a pent-up demand for USP compliant cleanrooms is ready to be realised.

According to the market report conducted by L.E.K, the market potential for the installed base of USP compliant cleanrooms are 8 000. The market is growing at a solid volume CAGR of 19% from 2018 to 2023

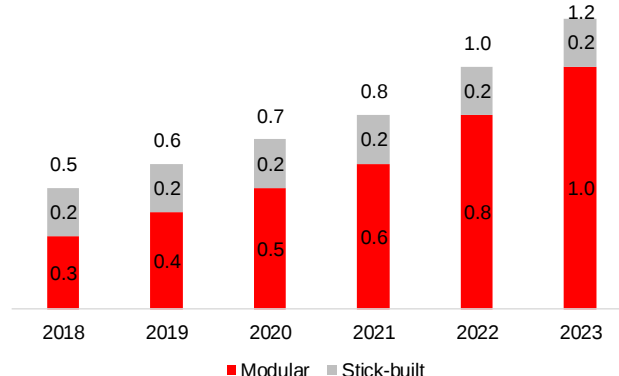
We understand the price level of a cleanroom varies greatly depending on several factors. However, we understand the average of all historically installed cleanrooms average USD 250 000 per room. Using this average price of USD 250 000 per cleanroom, we derive a total market value of USD 300-450m for 2020-2023. We believe underlying end-market growth combined with increased requirements will boost growth for the industry for many years to come.

Total market value for room solutions core markets, USDm



Source: L.E.K. Consulting GmbH, Redeye Research

Estimated potential installed base for USP compliant (000) 2018-2023



Source: L.E.K. Consulting GmbH, Redeye Research

Competition

The cleanroom market is somewhat segmented, but Grifols being one of the largest companies. It is, however, only seeing less than 5% of net sales stemming from the segment. We do note that all companies focus on the same markets and customers. However, we believe QleanAir's performance guarantee commitments and experience from cleaning smoke lower the barriers to becoming a customer of QleanAir. Often, a cleanroom is a sizeable investment and having a supplier that guarantees the performance and the cleanroom to be USP compliant even after years, the risk is limited.

Overview: Room solutions competitors

Company	HQ	FTEs	Additional offering		Regional focus		
			Training and procedure guidelines	Maintenance contract	DE/AU	Nordics	Nordics
		108	✗	✓			
		25000	✗	✗			
		50	✓	✗			
		1900	✗	✓			
		50 (2017)	✓	✓			
		195	✓	✗			

Additional Offering	✓ Offered	✗ Offered	
Focus	Strong	Medium	Limited

Source: Company Data, Redeye Research

Customers:

Hospital pharmacies

Hospital pharmacies need to provide patients with personalised medicines on site quickly and easily. They must comply with the laws and regulations for handling hazardous substances, which is facilitated using modular cleanrooms. These are used for the preparation, composition, and storage of medicines with regulatory classification.

Drug processors

Like hospital pharmacies, some companies carry out drug preparation and deliver patient-specific medication but are not affiliated with a specific hospital. They offer a centralised merging of services to hospitals and other providers of long-term care. As with hospital pharmacies, demand is driven by stricter cleanroom requirements for all handling of medicines with regulatory classification.

BioTech and MedTech

Bio- and MedTech companies need to work in an environment undisturbed by airborne particles that could negatively affect the work process. To these customers, QleanAir delivers cleanrooms with a regulatory classification required to maintain a particle-free working environment. These end customers are only on the Swedish market at the time of writing.

Business model

In the following section, we describe QleanAir more in detail for the reader to better understand the business and its organisation.

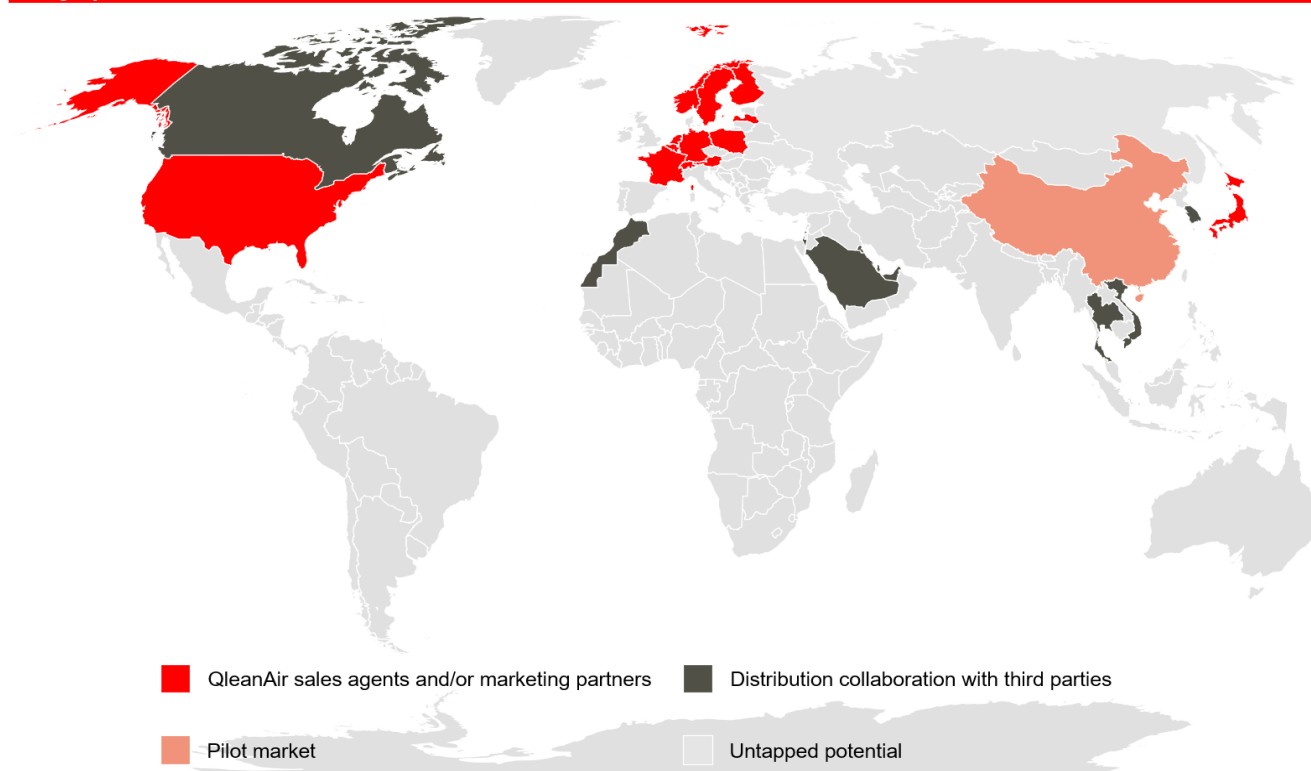
Sales & Marketing organisation

The table below illustrates that QleanAir's sales personnel is the backbone of QleanAir's organisation. This is also why we believe QleanAir will continue to invest in sales personnel to realise the growth potential. Japan accounts for most sales personnel, and this is also the region where QleanAir has seen most of its growth coming from. We believe the sales personnel based here will continue to process the Japanese market and possibly South Korea and China in the future. The table data comes from QleanAir's prospectus in 2019.

Breakdown of personnel								
Function	Sweden	Japan	Germany	USA	Netherlands	Denmark	Belgium	Total
Management	2	0	0	0	0	0	0	2
Other key individuals	7	1	1	1	0	0	0	10
Sales personnel	5	22	9	4	2	2	1	45
Accounting and admin.	8	2	1	1	1	0	0	13
Support and service	6	5	1	8	0	0	0	20
Marketing	3	1	1	0	0	0	0	5
R&D	2	0	0	0	0	0	0	2
Total	33	31	13	14	3	2	1	97

Source: Company data, Redeye Research

Geographical market overview



Source: Company data, Redeye Research

Installation and Service

QleanAir's products are installed at its customers by its service partners on any given market. QleanAir has partners for all its markets, and the service personnel are dressed in QleanAir workwear and drive QleanAir-striped cars. The service partners have been carefully chosen, as they are the extended arm of QleanAir, and represent the brand. Apart from installation, the service partners do all the maintenance service.

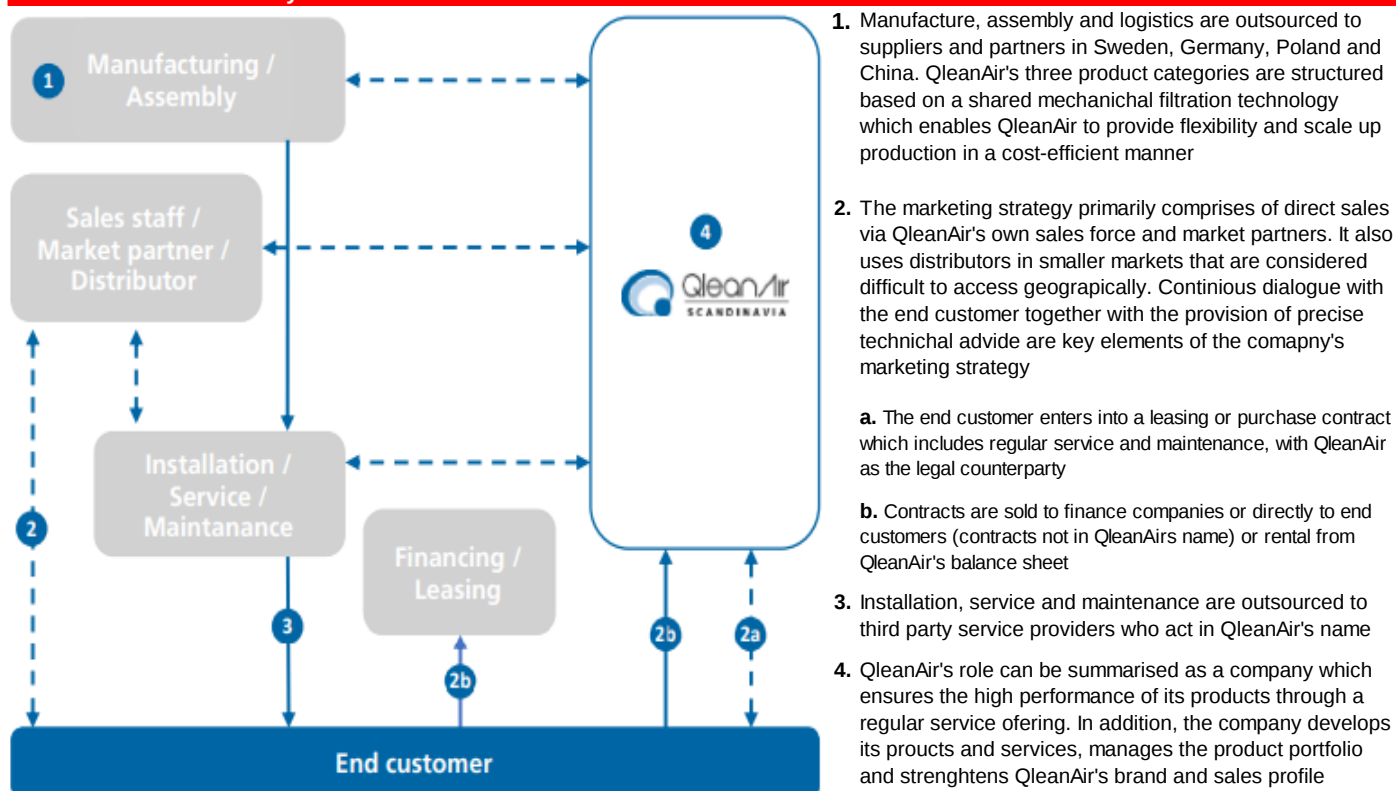
The service partners are compensated by each customer installation and maintenance service it performs. Therefore, it indirectly lies in the service partner's interest that QleanAir wins additional contracts, which we consider a positive incentive. Having an installation & service partner allows QleanAir to enjoy all benefits from having a close relationship to its customers while enjoying the benefits of a low cost base.

Production

QleanAir has outsourced its production to subcontractors, where material sourcing from sub-suppliers and assembly takes place. Production takes place in Sweden, Germany, Poland and China. The product offering of QleanAir is based on a shared mechanical filtration technology which allows cost-efficiency and some scales of economy.

The products are shipped from the production facility to QleanAir's installation personnel (typically outsourced to a third party), operating in QleanAir's name and brand. This allows QleanAir to provide installation, service and maintenance without having to employ additional FTEs. Furthermore, as QleanAir does not own production facilities, it has very limited CAPEX needs, which improves the free cash flow generation

Air cleaners - How do they work?



Source: Company data, Redeye research

Research and development (R&D / product development)

All products of QleanAir have been developed, designed, and tested in-house by QleanAir's R&D department. We understand it currently includes 2 people, but many more are involved in the process. We like to highlight that the R&D director, Bo Dolk Peterson, has been with QleanAir for more than 25 years. We understand QleanAir always is in close dialogue with its customers to develop and improve its product offering. We believe these relationships and the ability to capitalise on them is very valuable. An illustration of this was during 2020 when QleanAir managed to put 6 new air cleaners on the market and served customers such as Karolinska during the peak of the Covid pandemic.

Order procedure

Once a customer decides to purchase and install an air cleaner, QleanAir orders its subcontractors, who assemble the parts (that they often have on the shelf). QleanAir recognises an upfront payment from the customer, which has a positive effect on working capital. Typically, from the date of order, QleanAir is paid within 30 days, and pays its supplier within 45 days.

COOL IT platform –QleanAir's backbone

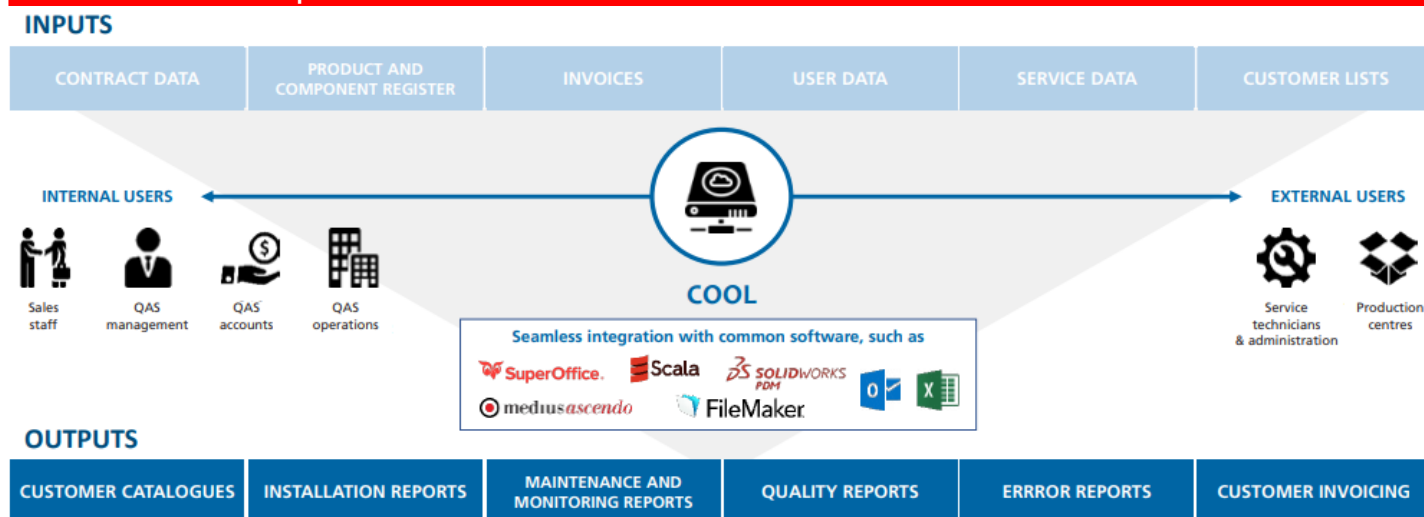
The COOL IT platform is the backbone of QleanAir. It is an own developed IT back-office IT system and controls processes and accounts through data analysis. It also manages information about deliveries, installation, and service and maintenance work.

COOL stands for Customer operation online, and it can be used by both QleanAir employees and by its suppliers – and this is also where payments solutions are managed – as it stores and monitors orders and contracts from customers and suppliers.

QleanAir is working on integrating COOL and IoT units in its products to further improve efficiency and monitoring abilities.

We believe the IT system enables QleanAir's business concept and QleanAir's offering (smooth installation, service and maintenance, smooth payments etc.). We believe the system creates barriers to entry, as it enables the offering and should provide significant cost savings as opposed if there was no IT system.

Overview of the COOL IT-platform



Source: Company data, Redeye Research

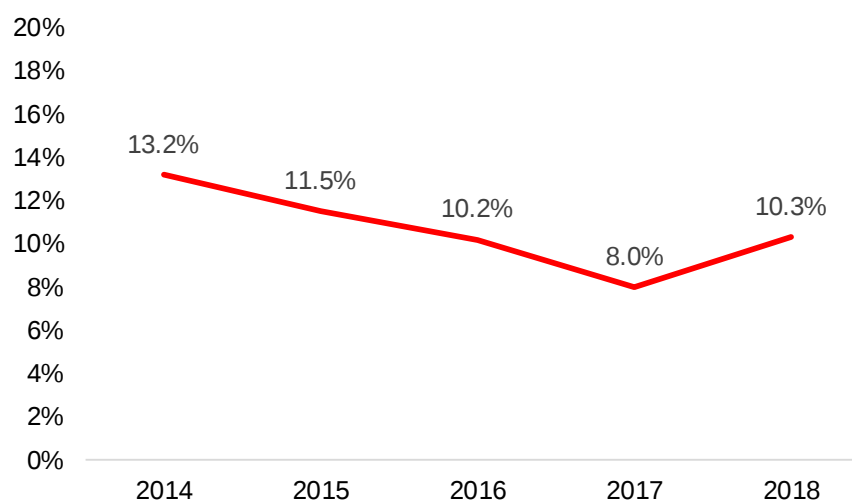
Impressive customer satisfaction

QleanAir has a high customer satisfaction of 8.5/10, which is likely one of the keys going forward to increase installations per customer and improve the extension rate/time per contract. It is also one of the finest grades one can receive and reinsures the successful value proposition that QleanAir provides and hints at the customer loyalty it possesses. With an already fine base of recurring revenue, these should be further protected, and one-time sales should and could likely generate further recurring revenues. Customer satisfaction has been concluded through surveys during the period 2016-2018

Historical customer churn rate

QleanAir has shared its historical churn from 2014 until 2018. Churn is defined as dismantled units relative to the installed base. As the chart illustrates, the churn rate trend is relatively low and declining. During the same period, organic growth (in terms of installed units) has been very solid and posted a CAGR of 10%.

QleanAir's churn rate 2014-2018, %



Source: Company data, Redeye research

We do not estimate the churn rate going forward, but we believe it could be around these levels, or possibly lower – as we believe increasing leasing rates will be made. However, it is not unusual a unit is dismantled but re-installed under a new contract shortly afterwards.

Strategy

QleanAir has a clear strategy for realising continued capital efficiency and profitable growth. As the company sees it, the main focus is developing new products and solutions, profiting from its existing customer base, and profiting by having a strong sales organisation.

We believe these initiatives (found below) will provide opportunities beyond the current business plan, as QleanAir has stated. By comparison, this is what we have seen in the segments facility solutions and room solutions – where QleanAir has created new segments from its expertise in smoking cabins and is now generating some SEK 100m from new business areas that are both growing rapidly and have high margins. All this also further improve the production efficiency and should therefore provide step by step better margins. Furthermore, cross-selling opportunities should be great ahead.

Expand the sales organisation

The sales organisation is, in our view, the key to ensuring future growth. The relationship between QleanAir and the customers is in practice between the customers and the sales organisation of QleanAir. This is where much value can be created and captured.

New products and solutions

Product development plays a key role in QleanAir's business, and it intends to launch improved solutions based on the company's patented technology, for example, through the integration of the internet of things (IoT). IoT technology allows for greater volumes of compiled data, resource optimisation, real-time monitoring with the potential for improving process oversight and value creation for customers.

Strategic resource allocation

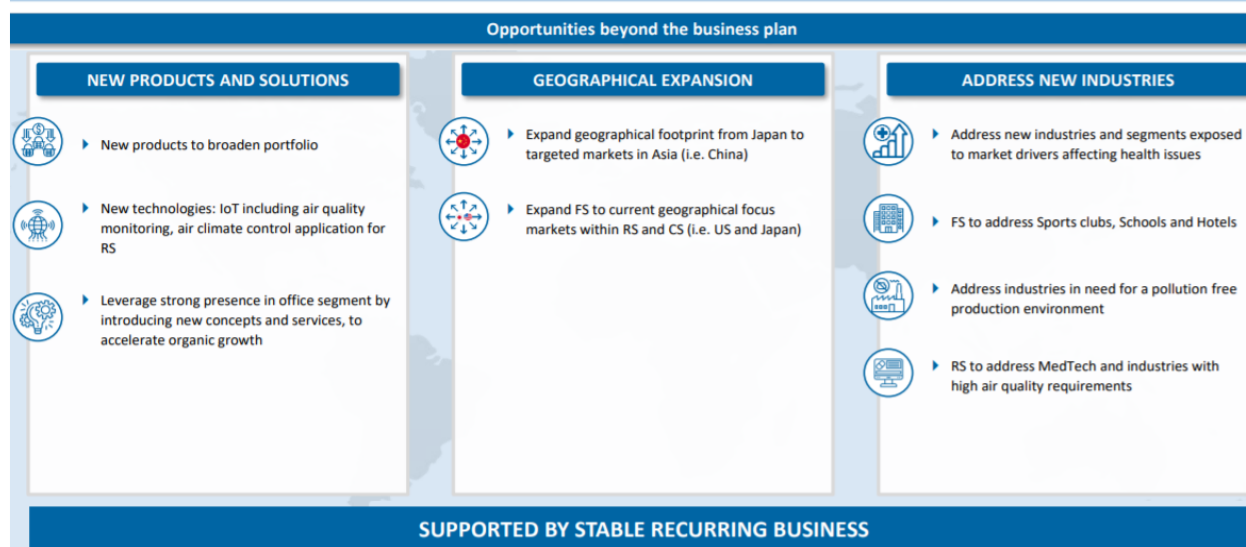
QleanAir shall optimise the business's cost structure by allocating production and assembly centres closer to the main markets. The company intends to place a production centre for room solutions in the US and expand the already established production operations for cabin solutions in China to meet the demand of the Japanese market.

Opportunities beyond the business plan

- Launching of new products and technologies
- Geographic expansion to new markets
- broadening of end markets to sports clubs, schools and hotels (which we have partly seen already)
- introduction of new concepts and services that accelerate organic growth.

Strong underlying market drivers to support growth going forward

Long-term initiatives beyond the three year business cycle



Source: Company data, Redeye Research

We still believe QleanAir has only scratched the surface in its facility solutions and cleanrooms segments, as several trends will drive demand. The reception has already been very solid in current markets, and we believe both cross-selling and entries into new markets will be made – further spurring potential revenues.

Financial targets

Since QleanAir's IPO in December 2019, it has announced financial targets ranging for the medium- to long term.

Growth: The group's goal is to achieve an average annual organic sales growth of approximately 10% in the medium term.

Profitability: The group's goal is to deliver an EBIT margin of 15-20% in the medium term

Dividend policy: The goal is that between 30 and 50% of profit for the year will be paid in dividends. The dividend proposal shall take into account QleanAir's long-term development potential, financial position and investment needs.

We believe the financial targets align with what the company has managed to accomplish throughout the last 20-year period. Therefore, we find it positive it is reinstated over the medium period – which we expect to be around 5-10 years.

The history of QleanAir

1988-2000: Founding

QleanAir was founded in 1988, by Peter Bjersten, a Swedish firefighter, with the vision was addressing health problems caused by passive smoking. The company initially focused solely on developing stations to protect humans from dangerous particles and gases derived from smoking.

In 1997, the company launched a cabin that was the world's first freestanding station – making QleanAir one of the pioneers in the industry. In the year 2000, Smoke Free Systems was founded, which laid the foundation for the coming international expansion.

2001-2011: International expansion

During the period 2001-2006, the company expanded and established a presence in numerous European markets. In 2004, a new generation of cabins was launched, the SF line, and the company also entered Japan in 2008.

2012-2013: Increased scope of business

In 2012, the company was acquired by Qevirp 41, a Swedish private equity firm, and the name was changed to QleanAir Scandinavia. The change of ownership also widened the scope of the business, which resulted in expansion into new business segments and profiting from the expertise built in the company over the years.

In 2013, QleanAir signed a contract with one of the leading Japanese commercial property developers, making it one of its largest customers. In the same year, the first freestanding air cleaning solution for industrial environments was released, and so it was the first new cleanroom solution – only 1 year after QleanAir addressed it wanted to expand into new segments. Room Solutions in the US was launched, and a contract with a leading German automotive manufacturer was signed within cabin solutions.

2014-2016: Recognition

QleanAir continuous its pilot project in the US market, focusing primarily on product within room solutions. Also, a number of leading European food and logistics companies improved the strong customer base of facility solutions. In 2016, the FS 70 industrial air cleanings system was launched, and the AirQlean Low 115 was awarded "outstanding popular science

product award" by Changhai Science Expo/PSPE. During the same year, room solutions was launched in the US, which came to be the start of the rapidly expanding US operation for cleanroom solutions within the healthcare sector.

2017-2019 (2020?): Scaling up

During the period, the company secures cleanroom contracts with several American hospital systems – and the success leads to an increased focus on room solutions, and the company launches the third generation of cleanrooms which meet a number of rigorous US safety and health standards, such as the USP 795, 797, and 800, coupled with real-time monitoring.

In 2018, the company appointed Andreas Göth as the CEO, and a sole supplier agreement is signed with a leading American hospital system. In parallel, the company expands within cabin solutions in Japan due to strong growth and a favourable future outlook.

2020-: Profitable growth in focus

The company was listed under the ticker QAIR on Nasdaq First North Premier Growth Market on December 12, 2019. In connection with the listing, new financing is in place, and the acquisition of SFS finance takes place.

In 2020, The launch of new products took place during Covid when the awareness of air quality increases and Facility solutions experienced great demand.

Covid and the Outlook beyond Covid

2020 was a record year in terms of widening the product offering – which was a consequence of Covid. QleanAir was quick in grasping the extent of Covid, and both helping customers and capitalising on it by releasing high performing, quiet and flexible products for hospitals and schools that would prevent the spreading of Covid. As a result, QleanAir received ground-breaking orders in the respective customer segment. It is also well worth mentioning it received ground-breaking orders in the room solutions segment in terms of order value.

Going forward, we expect QleanAir to continue capitalising on the effects of Covid, primarily in the hospital and school segment, but also in the room solutions segment, as the main customers in the segment have been occupied with handling Covid – which has dampened the near-term demand for cleanrooms. The cabin solutions segment has also been hampered by Covid, as customer investments have been limited due to Covid. However, as restrictions ease, we expect the demand to increase and that some pent-up demand regarding the Health promotion act in Japan will start to realise – which we expect to be a solid driver of growth.

Position in the market

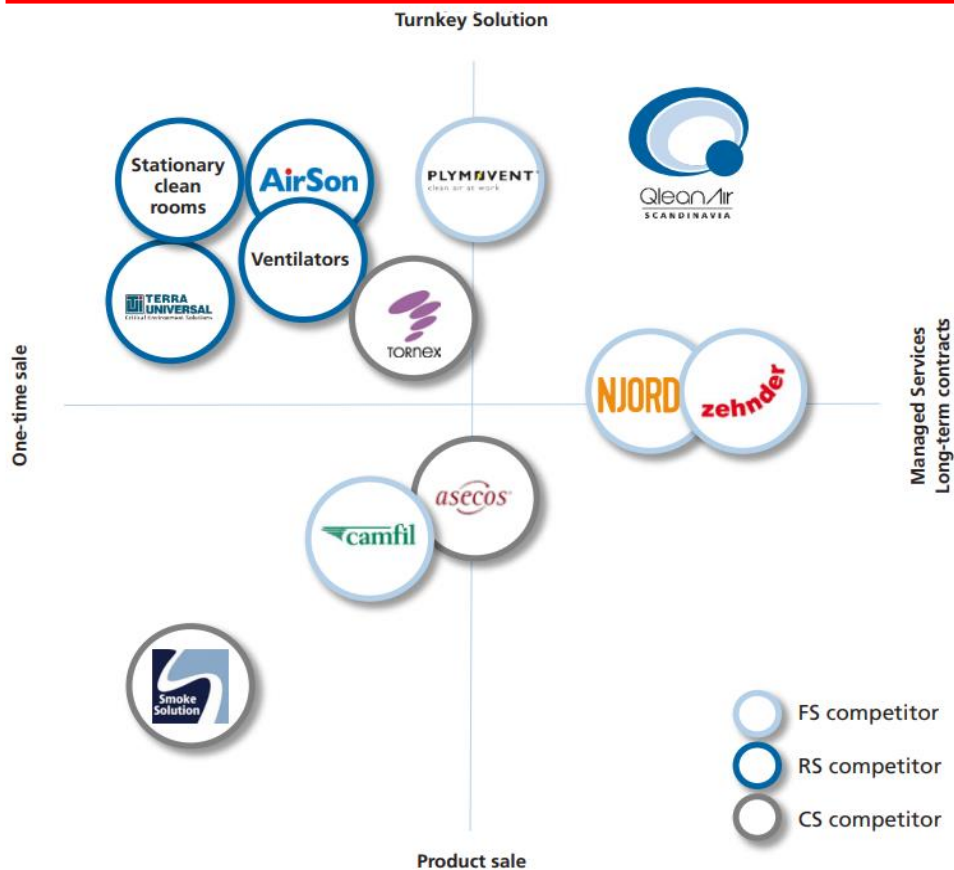
As the following chart illustrates, QleanAir has a somewhat unique position in the competitive landscape. It offers Turnkey solutions, combined with managed services and long-term contracts, instead of many of its competitors who offer one-time sales or more tilted toward product sale rather than a turnkey solution.

We understand customers are seeking to move from CAPEX to OPEX and want clean air as a service rather than making a relatively large one-time purchase, where it has to hire an installer while trusting the reseller it has chosen the right product. The customer rather purchases clean air rather than the product itself. We believe there are great values to be created and captured in the space of air cleaning, which QleanAir has demonstrated. This is also showing in the P&L, with gross margins of around 70%.

We also notice QleanAir is the only company offering sales within all 3 segments (FS, RS, CS), which we find very positive as i) it can profit from its competencies within different segments

ii) it allows for cross-selling iii) It provides the most complete and broad product offering in the market. It is not unusual a customer within cabin solutions is looking for a facility solution by comparison. All in all, this lowers the barriers for customers to install a unit, and QleanAir can create and capture value.

QleanAir's market position



Source: Company data, Redeye research

Financials and estimates

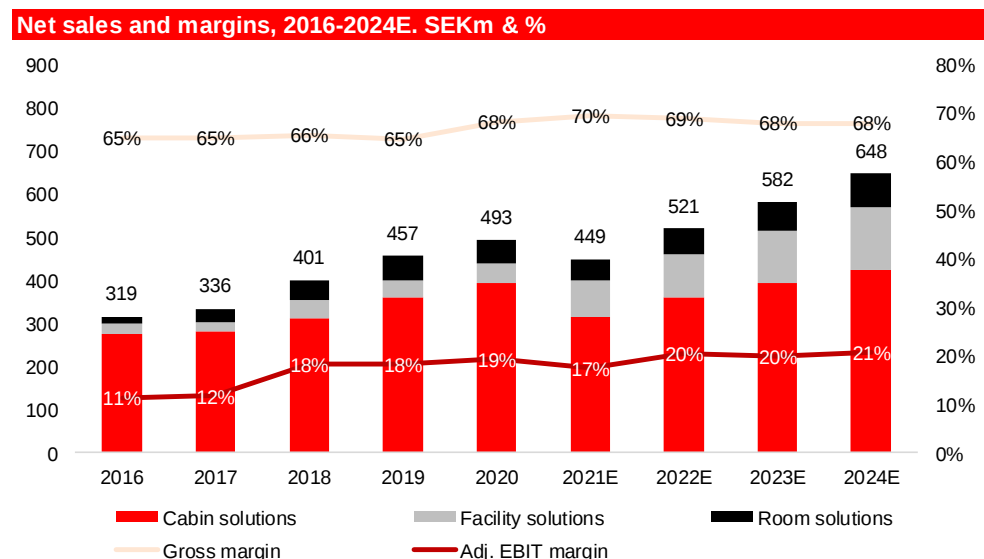
Sales (sales split)

Going forward, we expect a 3-year organic sales CAGR of 13%. We expect Cabin Solutions to show an 11% organic sales CAGR for the period 2021-2024, which is driven by the ease of Covid restrictions and the health promotion act in Japan. We see Facility solutions seeing continuous increasing demand because of Covid increasing the awareness regarding the benefits of air cleaners. We thus see a 3-year sales CAGR of 20% for the period. Covid has very negatively impacted Room solutions, even if it doesn't show in the P&L. Its customers have had to deal with covid patients and investments into the area has been limited. Also, restrictions have delayed projects. However, we are very positive to the outlook in the coming years as Covid restrictions ease and USP directives are enforced. We, therefore, see a 3-year sales CAGR of 15% for the period 2021-2024.

Our estimates could be seen in the light of QleanAir's medium-term target of 10% organic sales CAGR. We believe the coming years should present very attractive opportunities and that the underlying fundamentals have improved since the company published its targets. Also, the growth rates we refer to use 2021 as the base year. These figures are somewhat depressed due to Covid. Had we used 2020 as the base year, our growth rates would logically be a few percentage points lower.

Sales split and profitability 2018-2024E							
SEKm	2018	2019	2020	2021E	2022E	2023E	2024E
Cabin solutions	313	360	393	315	361	394	425
Facility solutions	41	42	46	83	100	120	144
Room solutions	46	56	54	50	59	68	78
Net sales	401	457	493	449	521	582	648
Organic sales growth	14%	8%	9%	-1%	16%	12%	12%
Gross margin	66%	65%	68%	70%	69%	68%	68%
Adj. EBIT margin	18%	18%	19%	17%	20%	20%	21%

Source: Company data, Redeye Research



Source: Company data, Redeye Research

Cabin solutions sales

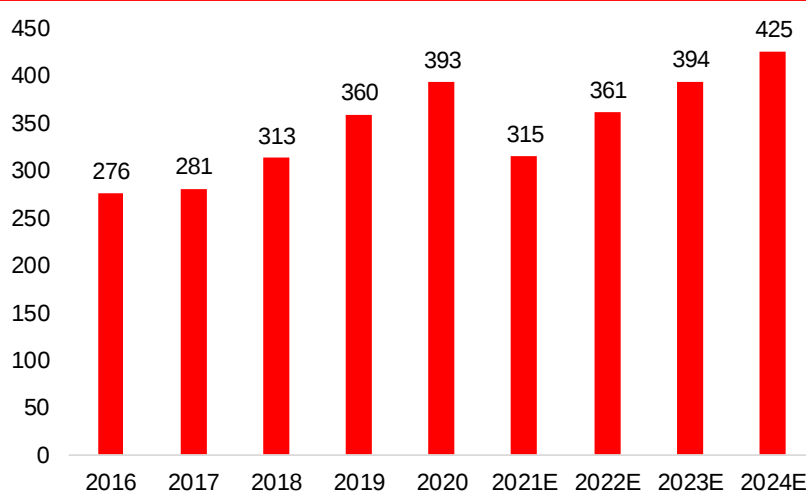
We estimate Cabin solutions will deliver an 11% organic sales CAGR in the coming 3 years.

This can be put in relation to the last 4-year sales CAGR of 9%. We consider our estimates to be somewhat conservative, given that Covid restrictions are expected to ease, which will drive demand from public spaces, offices, and logistics. Furthermore, the Health promotion act in Japan should both drive new demand and release pent-up demand that was postponed due to Covid. We believe the demand potential showed in Q1'20 and Q2'20 when sales volumes exploded.

We expect Europe to be a mature and stable market going forward and should generate sales growth somewhat above the GDP growth. Thus, we consider Japan to present the greatest growth opportunity going forward. We understand around 60-65% of new contracts comes from "sales channels". These are leads generated by architects, designers, dealers. They earn a 10% commission on the contract worth, which is a great incentive. However, once the contract time has expired and it is renewed, there is no commission from QleanAir. We believe leads generated should also increase vastly once Covid restrictions ease in Japan. We also understand QleanAir look to increase its sales force in Japan, which should further spur growth. During the last 2 years, sales in Japan has increased by 70%, implying a 30% CAGR. Using the same growth rate for the coming 3 years, and keeping Europe sales fixed, the cabin solutions segment should grow 20% organically

We also wish to highlight that the penetration rate in Japan is still very low and that the underlying market should continue to grow for a long time. Therefore, QleanAir does not necessarily need to gain additional market shares, even if we expect it to do. Currently, QleanAir has only addressed Tokyo, but there is also great regional potential outside the urban areas. We also believe QleanAir will launch a lower-priced cabin for the Japanese market to grasp growth opportunities in the less-premium segment.

Cabin solutions sales (SEKm), 2016-2024E



Source: Company data, Redeye Research

Facility Solutions sales

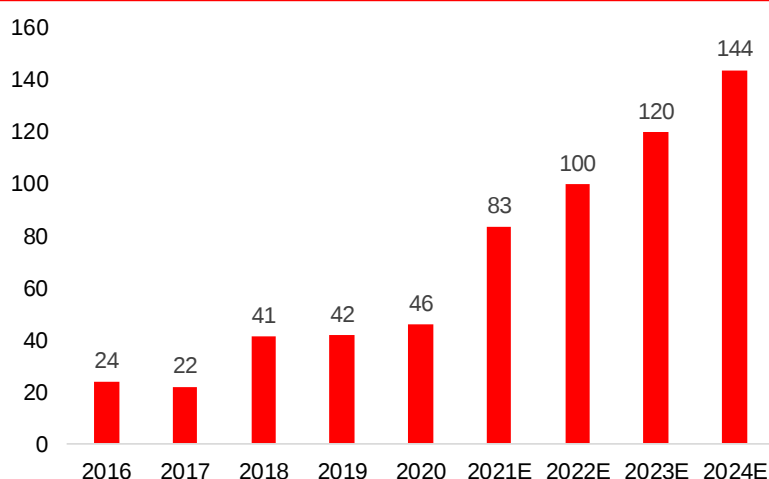
We expect facility solutions to generate an organic sale CAGR of 20% in the coming 3 years. This can be put in relation to the last 4-year sales CAGR of 18%. We are very optimistic about the growth outlook in the coming years, as multiple trends are working in favour of the segment.

While Covid was, and is, a major challenge for the world – it has increased the awareness of air quality and how the virus spread. Therefore, we believe the segments healthcare and schools has had their market outlook significantly improved. This is further supported by the orders QleanAir has received from Karolinska and schools in Germany

We believe this segment has great opportunities of benefitting from the already existing customer base generated by Cabin solutions. We understand cross-selling opportunities are great here. It should not require many efforts in installing an additional air cleaner to an existing smoke cabin, as the price is around 1/3 relative to the cabin.

We believe today's outlook is far better than before Covid, which is further supported by the great sales figures in H1'21 – which represented almost twice the sales y-o-y.

Facility solutions sales (SEKm), 2016-2024E



Source: Company data, Redeye Research

Room Solutions sales

We expect Room solutions to generate an organic sale CAGR of 15% in the coming 3 years. This can be put in relation to the last 4-year sales CAGR of 37%, however coming from low numbers.

The segment has been greatly affected by Covid, even if it has not completely shown in the P&L. This is due to the long lead times of the projects (6-9 months), and the revenue recognition is back-end loaded during this period. Therefore, order intake during Covid has suffered, and we believe it could show in the P&L in the coming quarters. However, once Covid restrictions ease, we believe the demand will increase, as hospitals and pharmacies can focus on other issues rather than the Covid pandemic related issues.

The USP 797 and USP 800 legislations are also what we deem to be great growth drivers going forward. Enforcement is likely to increase, and cleanroom owners likely want to be compliant rather ahead than after enforcement.

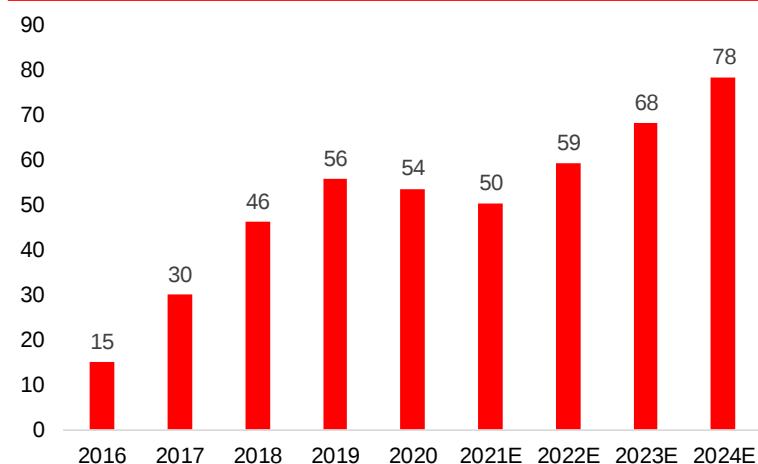
We believe QleanAir is looking to increase its sales operation in the US for the segment, and we also saw a ground-breaking order being announced in August, coming from CELLINK in Sweden. We, therefore, believe Sweden could generate some sales to the segment.

We also believe there should be great opportunities for QleanAir to grow together with its customers. As a cleanroom is installed, it can be further expanded due to QleanAir's unique offering and modular design. We, therefore, expect QleanAir to gain market shares on behalf of competitors that can't offer modular design. We believe customers value the option of having modular design as it can be hard to foresee and predict future needs.

We believe there should be great sales potential in both the existing customer base and attracting new customers. We believe one should regard a customer's potential lifetime value rather than the one-time sales value - as both the number of customers and the number of installed cleanrooms per customer are considered sales drivers.

We also wish to highlight QleanAir's performance guarantee commitments that it offers to its customers. This means QleanAir will guarantee the performance of the cleanroom and that it will always be compliant. If it isn't, QleanAir will compensate the customer. This is something we haven't seen any competitors offer and should also be a factor to increase market share.

Room solutions sales (SEKm), 2016-2024E

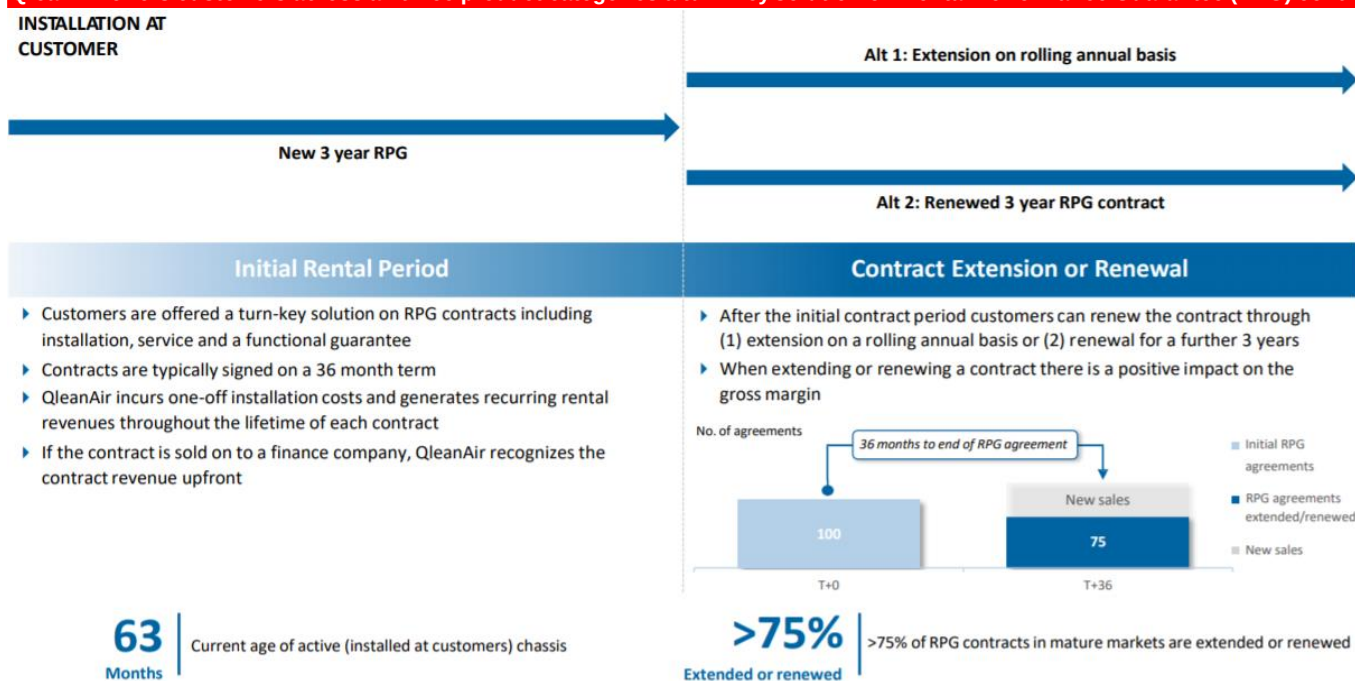


Source: Company data, Redeye Research

Revenue streams

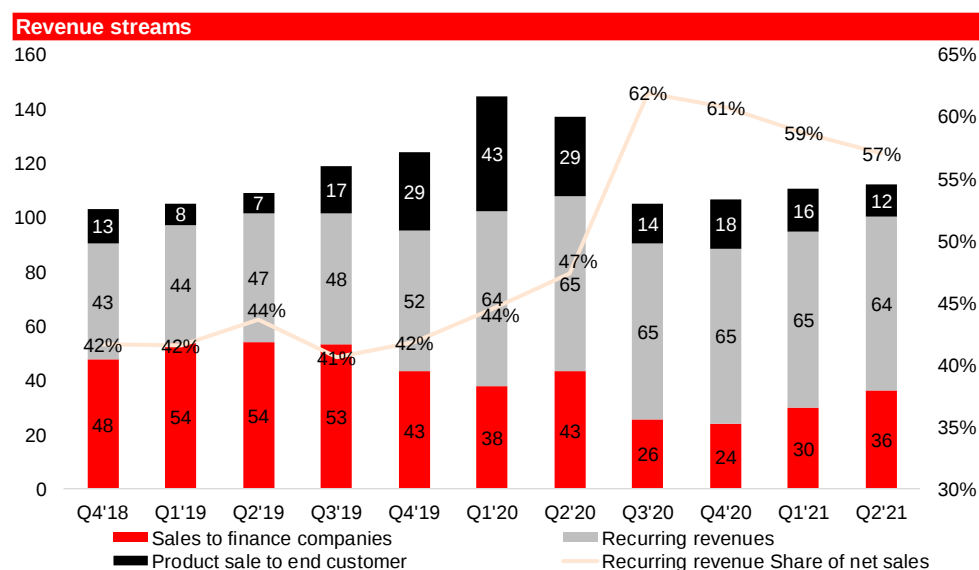
QleanAir has a total of three revenue streams: Recurring (rental) revenue, sales to finance companies, and product sales. The table below illustrates how it works in practice.

QleanAir offers customers across all three product categories a turn-key solution on Rental Performance Guarantee (RPG) contracts



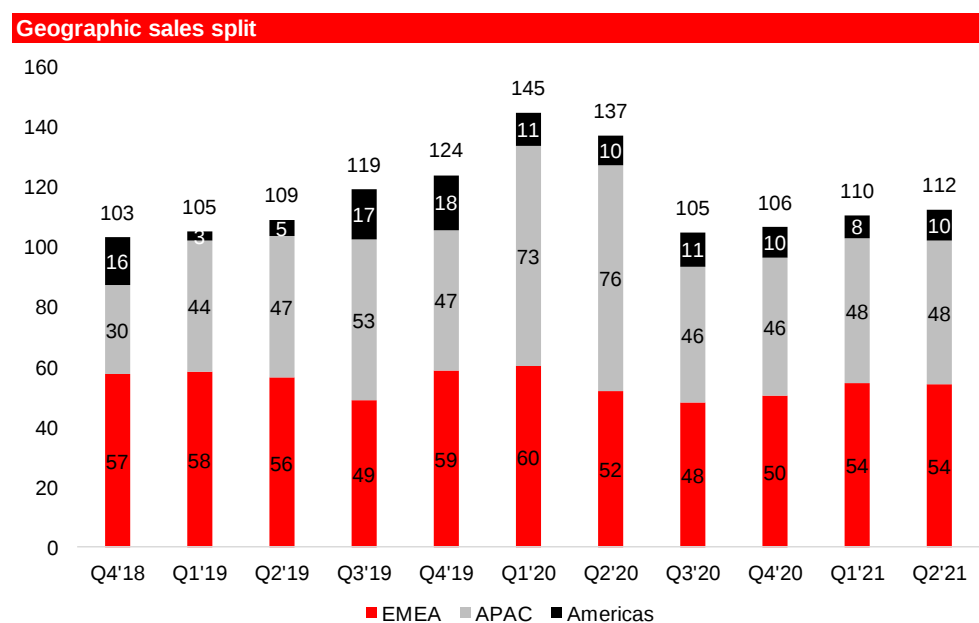
Source: Company data, Redeye Research

Recurring revenues are very stable and increasing, which the chart below illustrates. Furthermore, its share of total sales has increased during the last 4 quarters, as a function of decreasing direct sales and sales to finance companies – acting as a dampening cushion in tougher times (which was the case during Covid).



Source: Company data, Redeye Research

The following chart illustrates the geographical sales split. It is evident that APAC (Japan) sales completely exploded in Q1'20 and Q2'20 because of the enforced Health promotion act. However, this effect has been dampened by Covid. Going forward, we see eased Covid restrictions releasing a pent-up demand which should likely spur APAC growth once again.



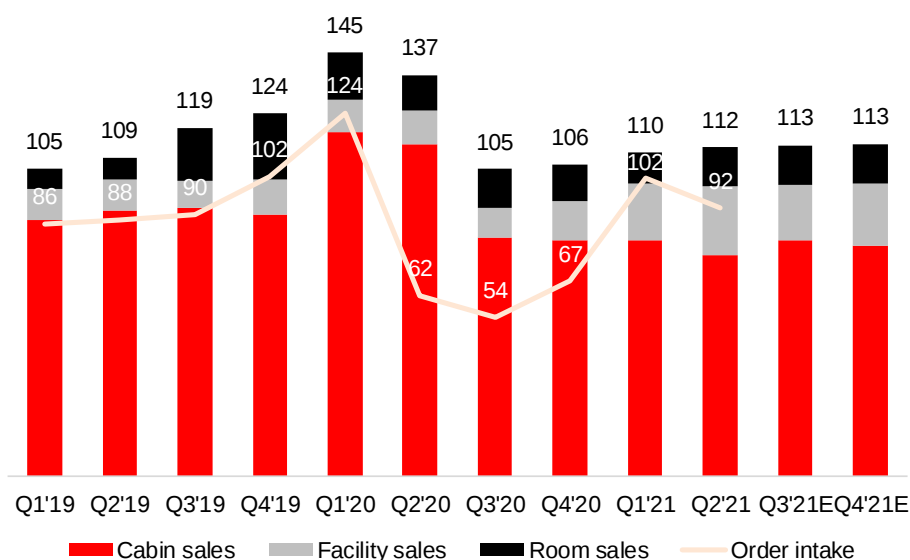
Source: Company data, Redeye Research

Order intake

QleanAir announces its order intake in its quarterly reports, illustrated in the table below. Typically, orders are delivered fast. Facility solutions has a lead time of 4-6 weeks, and Cabin solutions has somewhat longer. Cleanrooms, however, have lead times of 3-9 months – as it

is a completely different operation and not a product located on the shelf. Cleanroom orders are often press released, however. It is also worth mentioning that the revenues from these orders are reported in the P&L not when the order is received, but during the due course of the construction, with most of the revenue being back-end loaded.

Divisional sales and order intake



Source: Company data, Redeye Research

Gross margins

QleanAir does not disclose the gross margins of each product segment in its financial reports. However, QleanAir has guided on this range in its conference calls. We, therefore, derive the following range of margins for each segment:

Cabin solutions and Facility solutions: 60-70% on new sales, and 70-80% on renewed contracts, as the COGS gets very low. We derive a 70% GM for the segment. We understand the profitability is higher in Japan than in Europe, due to higher prices. Therefore, we see a positive margin development as APAC sales increase, and the contract base matures, and contracts are renewed. Room Solutions has gross margins around 50-60%, and the cleanrooms are primarily sold rather than leased.

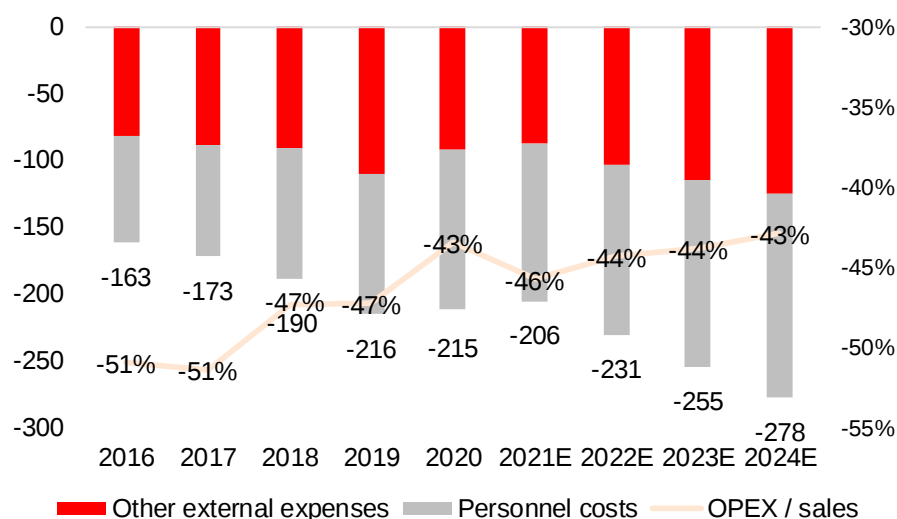
OPEX and personnel base

QleanAir reported 2020 OPEX (personnel costs & Other external costs) of SEK -215m. The table and chart below illustrate the OPEX development throughout the years. QleanAir currently has 108 employees, and we believe future employments will be due to grasping growth prospects. We, therefore, see R&D and sales related costs increasing – which is captured in our estimates. However, the OPEX-to-sales ratio is decreasing in the coming years, which should have a positive effect on the EBIT margin as operational leverage takes its course.

Breakdown of personnel

Function	Sweden	Japan	Germany	USA	Netherlands	Denmark	Belgium	Total
Management	2	0	0	0	0	0	0	2
Other key individuals	7	1	1	1	0	0	0	10
Sales personnel	5	22	9	4	2	2	1	45
Accounting and admin.	8	2	1	1	1	0	0	13
Support and service	6	5	1	8	0	0	0	20
Marketing	3	1	1	0	0	0	0	5
R&D	2	0	0	0	0	0	0	2
Total	33	31	13	14	3	2	1	97

Source: Company data, Redeye Research

OPEX base, 2016-2024E

Source: Company data, Redeye Research

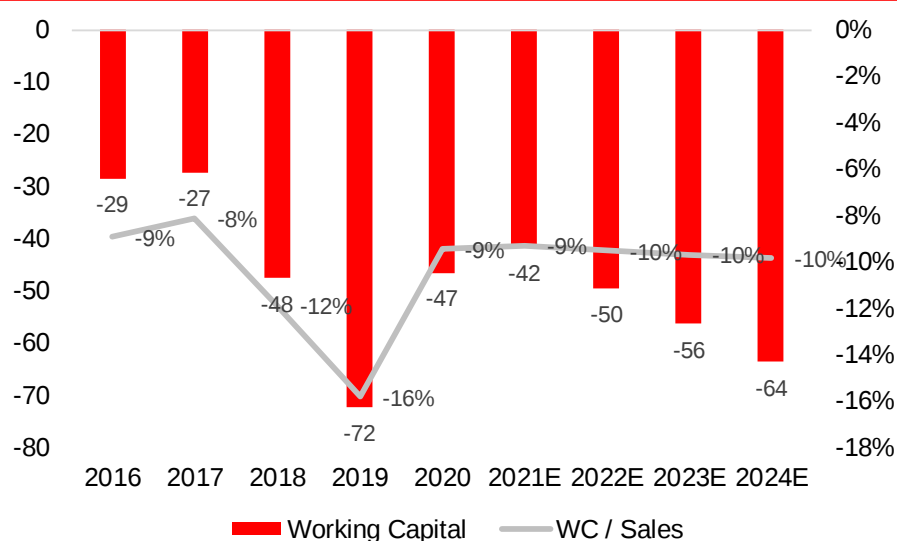
EBIT margins

Due to QleanAir's high gross margins, EBIT margins have been around 15-20% historically, and this is also what we see going forward, depending on QleanAir's personnel base. The company enjoys operational leverage, but we believe it aims to increase its OPEX base to drive future growth – which somewhat dampens the operational leverage effect. We find the strategy very positive, however.

Working capital

QleanAir has, during the last 5 years, averaged SEK -45m p.a. in working capital. We see no reason why this should change, as the company has outsourced production and does not hold any inventories. QleanAir also recognises payments in advance from its customers while paying its suppliers in retrospect.

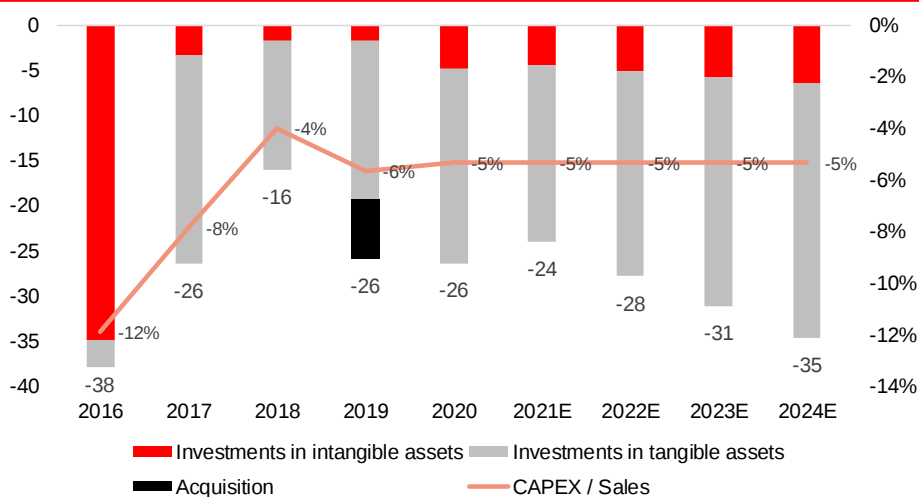
From a financial point of view, we really consider this to be one of the strengths of QleanAir. The negative working capital really provides a path of growth requiring limited capital. As a result, the cash generation is very high. FCF relative to net profit has been around 100% in recent years, and return metrics such as ROIC, ROCE, and ROE are all well above the WACC.

Working capital, 2016-2024E

Source: Company data, Redeye Research

CAPEX

As QleanAir's production is outsourced to sub-suppliers, QleanAir has very limited tangible assets. Due to the absence of a production facility/line, CAPEX is very limited, and we understand current investments is addressable to units on QleanAir's balance sheet. The CAPEX ratio has been around 5% of net sales. Going forward, we expect the same ratio.

Capital expenditures, 2016-2024E

Source: Company data, Redeye Research

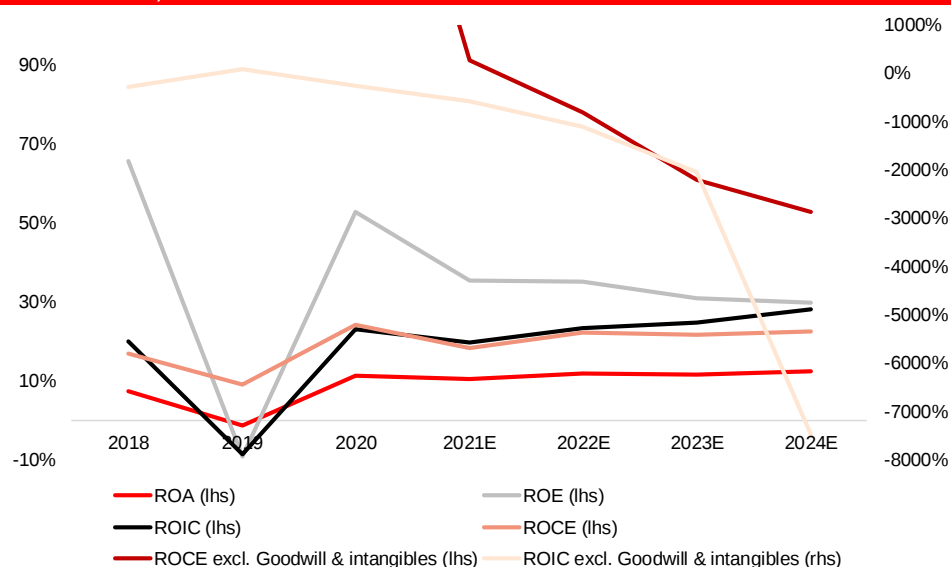
Net debt

QleanAir currently (Q2'21) holds a cash position of SEK 60m and has SEK 265m in interest-bearing debt. This includes some SEK 60m in leasing. Adjusting for this, net debt amounts to SEK 180m – for a net debt / EBITDA ratio of 1.8x for the FY 21.

Return metrics

QleanAir is yielding very impressive return metrics across the board. Three-year adj. average ROIC, ROCE and ROE have been 21%, 20%, and 52%, respectively. This is in line with the historical average. The high figures are mainly a result of QleanAir's profitability, the types of revenue streams (financing model), negative working capital, and its asset-light business model. However, we wish to highlight that the return metrics should be adjusted for Goodwill, due to Priveq's acquisition in 2012. Had the acquisition never taken place, had the Goodwill never occurred. QleanAir's Goodwill-adjusted return metrics are very impressive.

Return metrics, 2018-2024E



Source: Company data, Redeye Research

Goodwill

QleanAir has SEK 343m in Goodwill on its balance sheet. The Goodwill comes from acquiring smoke-free systems AB in conjunction with Priveq's investment in the company 2012. The Goodwill is impairment tested every year, and the outlook for QleanAir needs to change drastically in our view to be impaired.

M&A

To this date, all QleanAir's growth has been organic. The company does not hold an outspoken M&A agenda, and its financial targets are all based on organic initiatives. We do not believe QleanAir will make any acquisitions in the near term. But we do not rule out this possibility either.

We believe an acquisition could make sense if QleanAir identifies either a customer base it can capitalise on or a different product segment or technology that would complement its current offering.

On the opposite note, we do not rule out QleanAir as a potential buy-out target due to its proprietary technology and wide customer base.

Dividends

QleanAir has a dividend policy of distributing 30-50% of net earnings to its shareholders. Given its very high cash generation and close to zero in CAPEX needs, we see no reason why QleanAir should not be able to be in the top tier if it wants to. The remaining 50-70% of earnings will likely spur future growth initiatives such as R&D efforts and increasing sales personnel in new and existing markets. This is also the reason behind our OPEX estimates. For the coming three years, we expect dividend per share (DPS) of 1.5, 1.7, and 2.0. This can be put in relation to the SEK 1.3 dividend for 2020, paid out in May'21.

KPI:s

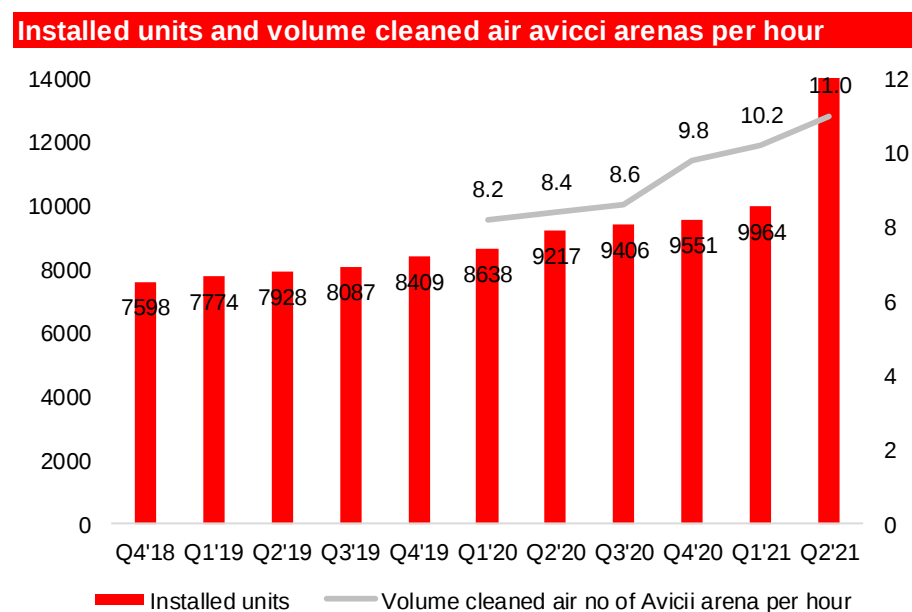
Installed base

Development of installed base per geography, units							
	2014	2015	2016	2017	2018	2019	2020
Germany & Austria	2504	2606	2484	2581	2583		
Japan	469	736	994	1325	1596		
Nordics	678	793	994	1186	1292		
USA	0	57	124	209	380		
Others	1513	1473	1615	1604	1748		
Total	5216	5665	6210	6976	7598	8409	9551

Source: Company data, Redeye Research

Avicii arenas cleaned.

Ahead of every quarterly report, QleanAir announces how many Avicii arena equivalents it has cleaned. This figure is driven by the installed base but is somewhat challenging to predict from an outside point of view.



Source: Company data, Redeye Research

P&L

Profit and Loss statement, 2018-2024E

SEKm	2018	2019	2020	2021E	2022E	2023E	2024E
Net sales	400.8	456.9	493.0	449.3	520.5	581.9	647.6
Other operating income	0.0	0.0	2.8	0.0	0.0	0.0	0.0
total income	400.8	456.9	495.8	449.3	520.5	581.9	647.6
Costs of goods sold	-137.9	-161.0	-156.6	-137.0	-161.4	-186.2	-207.2
Gross profit	262.9	295.9	336.4	312.3	359.2	395.7	440.4
Other external expenses	-90.9	-110.2	-92.0	-87.9	-103.7	-115.1	-125.4
Personnel costs	-98.7	-104.9	-119.6	-117.9	-127.3	-140.1	-152.7
Other operating expenses	-0.4	-1.1	-3.9	0.0	0.0	0.0	0.0
OPEX	-190.0	-216.2	-215.5	-205.8	-231.0	-255.2	-278.1
EBITDA	72.9	79.8	123.7	106.5	128.2	140.6	162.3
Adj. EBITDA	84.2	105.2	123.7	106.5	128.2	140.6	162.3
D&A	-11.1	-47.7	-28.7	-28.1	-21.5	-24.7	-27.9
EBIT	61.8	32.1	95.0	78.4	106.7	115.9	134.4
Adj. EBIT	73.1	83.7	95.0	78.4	106.7	115.9	134.4
Net financials	-21.7	-23.2	-9.4	-6.9	-9.0	-9.0	-9.0
Profit before tax	40.1	8.8	85.6	71.5	97.7	106.9	125.4
Tax	-19.1	-16.4	-18.6	-9.7	-21.5	-23.5	-27.6
Net profit	21.0	-7.5	67.0	61.8	76.2	83.4	97.8
Adj. Net profit	32.3	44.1	67.0	61.8	76.2	83.4	97.8
No. Of shares, m	0.0	14.9	14.9	14.9	14.9	14.9	14.9
-After dilution	0.0	14.9	15.1	15.1	15.1	15.1	15.1
Earnings per share	1.6	-0.6	4.5	4.2	5.1	5.6	6.6
-After dilution	1.6	-0.6	4.4	4.1	5.0	5.5	6.5
Dividend per share	0.0	0.0	1.3	1.5	1.7	2.0	2.3
Profitability							
Gross margin	66%	65%	68%	70%	69%	68%	68%
Adj. EBITDA margin	21%	23%	25%	24%	25%	24%	25%
Adj. EBIT margin	18%	18%	19%	17%	20%	20%	21%
ROA	7%	-1%	11%	10%	12%	12%	12%
ROE	66%	-9%	53%	35%	35%	31%	30%
ROIC	20%	-9%	23%	20%	23%	25%	28%
ROIC excl. Goodwill & intangibles	-270%	83%	-263%	-572%	-1102%	-2045%	-7476%
ROCE	17%	9%	24%	18%	22%	22%	22%
ROCE excl. Goodwill & intangibles	240%	180%	189%	91%	78%	61%	53%
Sales by segment							
Cabin Solutions	313.2	359.5	393.5	315.4	361.4	394.0	425.5
Facility Solutions	41.4	41.6	45.9	83.5	99.8	119.8	143.7
Room Solutions	46.2	55.7	53.6	50.5	59.3	68.2	78.4
Sales growth	6%	19%	14%	8%	-9%	16%	12%
Organic growth	14%	8%	9%	-1%	16%	12%	12%
FX	5%	6%	-1%	-5%	0%	0%	0%

Source: Company data, Redeye Research

Quarterly P&L

Profit and Loss statement, Q1'20-Q4'21E								
SEKm	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	Q2'21	Q3'21E	Q4'21E
Net sales	144.7	137.0	104.9	106.4	110.5	112.3	113.1	113.4
Other operating income	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0
total income	144.7	137.0	104.9	109.3	110.5	112.3	113.1	113.4
Costs of goods sold	-46.4	-43.4	-34.2	-32.6	-32.7	-31.9	-36.2	-36.3
Gross profit	98.3	93.6	70.7	76.7	77.8	80.4	76.9	77.1
Other external expenses	-28.0	-26.3	-19.1	-22.5	-21.0	-22.3	-21.0	-23.6
Personnel costs	-32.0	-34.9	-26.8	-26.0	-30.0	-30.1	-29.4	-28.3
Other operating expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OPEX	-60.0	-61.2	-45.8	-48.5	-51.0	-52.5	-50.4	-51.9
EBITDA	38.3	32.4	24.9	28.2	26.9	28.0	26.5	25.2
Adj. EBITDA	38.3	32.4	24.9	28.2	26.9	28.0	26.5	25.2
D&A	-6.9	-7.1	-7.0	-7.7	-6.9	-7.1	-7.0	-7.0
EBIT	31.4	25.3	17.8	20.5	19.9	20.8	19.5	18.2
Adj. EBIT	31.4	25.3	17.8	20.5	19.9	20.8	19.5	18.2
Net financials	-5.1	-0.2	-2.3	-1.8	-0.5	-2.2	-2.1	-2.1
Profit before tax	26.3	25.1	17.8	18.7	19.5	18.6	17.4	16.1
Tax	-8.4	-7.8	-6.5	4.0	1.3	-3.7	-3.8	-3.5
Net profit	17.9	17.4	9.0	22.7	20.8	14.9	13.5	12.5
Adj. Net profit	17.9	17.4	9.0	22.7	20.8	14.9	13.5	12.5
No. Of shares, m	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
-After dilution	14.9	15.1	15.1	15.1	15.1	15.1	15.1	15.1
Earnings per share	1.2	1.2	0.6	1.5	1.4	1.0	0.9	0.8
-After dilution	1.2	1.2	0.6	1.5	1.4	1.0	0.9	0.8
Profitability								
Gross margin	68%	68%	67%	69%	70%	72%	68%	68%
Adj. EBITDA margin	26%	24%	24%	27%	24%	25%	23%	22%
Adj. EBIT margin	22%	18%	17%	19%	18%	19%	17%	16%
Sales by segment								
Cabin Solutions	117.7	113.4	81.6	80.8	80.7	75.4	80.5	78.8
Facility Solutions	11.0	11.6	10.2	13.1	19.4	23.4	19.2	21.4
Room Solutions	16.0	12.0	13.1	12.5	10.3	13.4	13.4	13.3
Sales growth	38%	26%	-12%	-14%	-24%	-18%	8%	7%
Organic growth	30%	24%	-5%	-9%	-16%	-10%	16%	13%
FX	8%	2%	-7%	-5%	-8%	-8%	-2%	-2%

Source: Company data, Redeye Research

Balance sheet

Balance Sheet, 2018-2024E							
SEKm	2018	2019	2020	2021E	2022E	2023E	2024E
Capitalized development costs	7	6	13	17	23	28	35
Goodwill	344	344	344	344	344	344	344
Customer contracts	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intangible non-current assets	351	350	357	361	366	372	378
Leasing (IFRS 16)	0	23	16	16	16	16	16
Fixed assets	24	40	42	43	53	63	73
Tangible non-current assets	24	62	57	58	69	79	89
Deferred tax assets	0	11	5	5	5	5	5
Long term receivables	14	0	0	0	0	0	0
Financial tax assets	14	11	5	5	5	5	5
Total non-current assets	389	424	419	424	440	456	472
Inventories	23	32	27	24	28	32	36
Accounts receivables	49	36	34	31	36	40	45
Tax receivables	0	0	8	8	8	8	8
Other receivables	6	11	10	9	11	12	13
Prepaid costs and accrued income	44	43	35	32	37	41	46
Cash and cash equivalents	75	57	53	78	121	166	221
Total current assets	197	179	167	182	240	299	369
Total assets	586	603	585	606	680	755	841
Total equity	64	98	157	193	244	297	362
Provisions for taxes	3	0	0	0	0	0	0
Subordinated loans from shareholders	237	0	0	0	0	0	0
Liabilities to credit institutions	65	250	230	230	230	230	230
Other liabilities (IFRS 16)	0	14	7	7	7	7	7
Long term liabilities	305	264	237	237	237	237	237
Short term interest bearing liabilities	46	37	21	21	21	21	21
Accounts payable	35	41	25	22	26	30	33
Tax liabilities	4	2	0	0	0	0	0
Other short term liabilities	11	10	12	11	12	14	15
Other liabilities (IFRS 16)	0	9	10	10	10	10	10
Accrued expenses and deferred income	121	142	124	113	131	146	163
Current liabilities	217	241	191	176	200	220	242
Total liabilities	522	505	428	413	437	457	479
Total equity and liabilities	586	603	585	606	680	755	841
Working capital	-48	-82	-56	-52	-59	-66	-73
Net debt	274	230	199	173	130	86	30
Capital employed	369	361	394	430	481	534	599
Capital employed excl. GW	26	18	50	86	137	191	255
Invested capital	327	308	342	352	360	369	378
Invested capital excl. GW & intang.	-24	-42	-15	-9	-6	-3	0

Source: Company data, Redeye Research

Cash flow

Cash flow statement, 2018-2024E							
SEKm	2018	2019	2020	2021E	2022E	2023E	2024E
Operating profit	61.8	32.1	95.0	78.4	106.7	115.9	134.4
Adjustments for non-cash items	17.6	46.7	18.2	24.3	21.5	24.7	27.9
Net finance and FX translation effect	-5.1	-12.2	-11.6	-6.9	-9.0	-9.0	-9.0
Income tax paid	-18.1	-21.7	-22.3	-9.7	-21.5	-23.5	-27.6
Operating Cash flow before WC changes	56.2	44.9	79.3	86.1	97.7	108.0	125.7
Changes in WC	13.1	17.6	-7.2	-4.8	7.9	6.7	7.3
Cash flow from current operations	69.3	62.5	72.1	81.3	105.6	114.8	133.0
Investments in intangible assets	-1.7	-1.8	-4.9	-4.4	-5.1	-5.8	-6.4
Investments in tangible assets	-14.3	-17.4	-21.5	-19.6	-22.7	-25.4	-28.2
Acquisition	0.0	-6.6	0.0	0.0	0.0	0.0	0.0
Cash flow from investment activities	-16.0	-25.8	-26.4	-24.0	-27.8	-31.1	-34.6
Borrowing	-33.4	-57.4	-47.4	0.0	0.0	0.0	0.0
Leasing payments	0.0	0.0	0.0	-9.5	-9.5	-9.5	-9.5
Paid dividends	0.0	0.0	0.0	-22.3	-25.3	-29.7	-33.4
Cash flow from financing activities	-33.4	-57.4	-47.2	-31.8	-34.8	-39.2	-42.9
Cash flow for the period	19.8	-20.7	-1.4	25.5	43.0	44.5	55.4
Cash at start of the year	51.0	74.9	57.0	52.6	78.1	121.1	165.5
FX differences in cash	4.1	2.7	-3.0	0.0	0.0	0.0	0.0
Cash at end of the year	74.9	57.0	52.6	78.1	121.1	165.5	221.0
Free cash flow to firm	75.0	59.9	55.2	65.7	88.7	94.6	109.3
-Lease adjusted				55.7	78.7	84.6	99.3
Free cash flow to equity	53.3	36.7	45.8	57.3	77.7	83.7	98.3
-Lease adjusted				47.8	68.2	74.2	88.8

Source: Company data, Redeye Research

Valuation

Base case

In our base case, we model that QleanAir will continue to execute on its growth plan. We model Cabin solutions will see growth primarily from Japan (which is supported by several growth initiatives in the market, and the penetration is still low) while Europe grows just above GDP growth – which we find conservative.

Facility solutions will see continued high levels of demand, primarily driven by increased awareness of air quality and cross-selling opportunities.

Room solutions have been affected negatively by Covid, as its customers have been greatly affected by Covid. The segment has, however, still managed to win some record-breaking orders. We believe the segment will see high demand once Covid restrictions ease and things go back to normal, further spurred by regulatory tailwinds.

We have set a terminal (beyond 2031) EBIT margin at 16%, which we believe is a fair assumption. This can be put in relation to QleanAir's financial target of 15-20% EBIT margin in the medium term.

QleanAir: Base case				
Assumptions	2021-2024	2025-2031	DCF-Value	
Sales CAGR, %	13%	6%	WACC	8%
EBIT margin, %	20%	19%	Net present value FCF '21-'24e, SEK m	241
			Net present value FCF '25-'31e, SEK m	437
Cabin Solutions sales CAGR, %	11%	4%	Net present value terminal value '32e, SEK m	806
share of total sales	68%	59%		
Facility Solutions sales CAGR, %	20%	11%	EV, SEK m	1,484
share of total sales	20%	27%	Net debt, SEK m	211
Room Solutions sales CAGR, %	16%	10%	Value assos. Companies, SEK m	0
share of total sales	12%	14%	Value minorities, SEK m	0
Terminal				
Terminal growth FCF		2%	DCF-value, SEK m	1,273
Terminal EBIT margin		16%	Number of shares, m	14.9
Exit EV/EBIT multiple		12.8x	Estimated Fair value per share, SEK	86
Cabin Solutions % of sales		54%	Current share price, SEK	65
Facility Solutions % of sales		30%		
Room Solutions % of sales		15%	Potential/Risk	32%

Source: Company data, Redeye Research

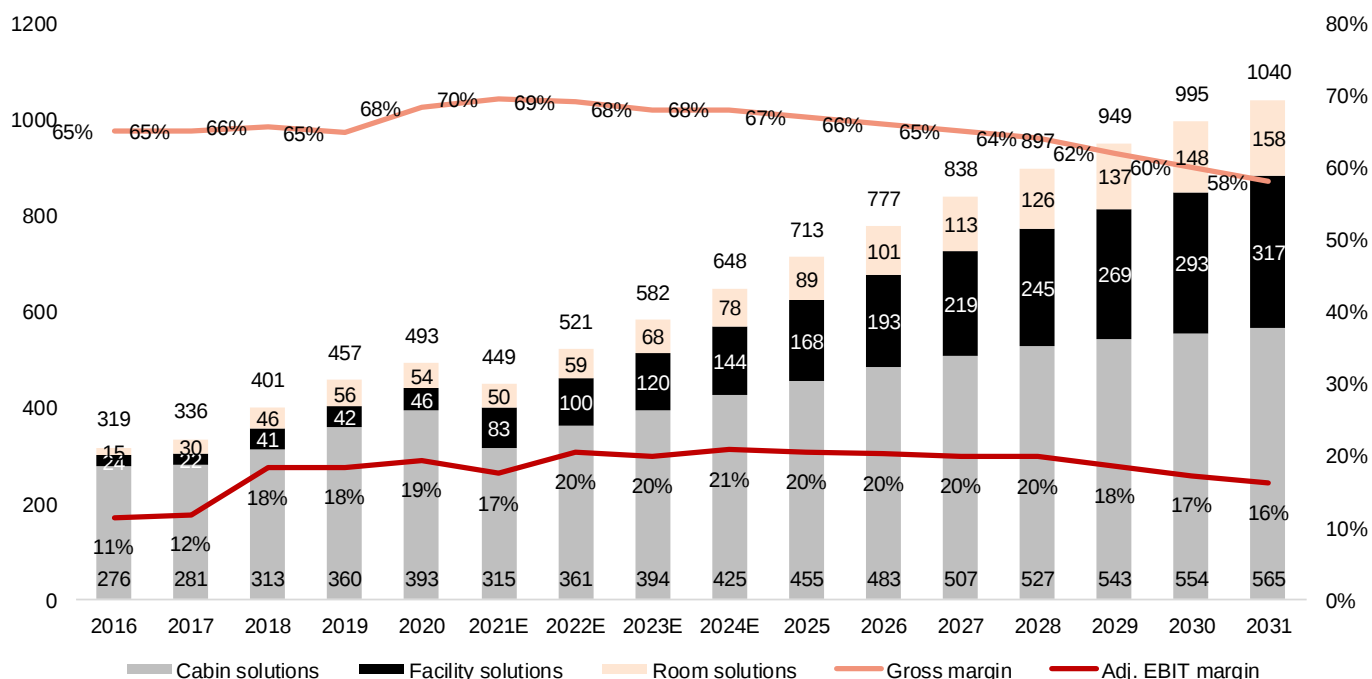
The following table illustrates the sensitivity of the base case valuation when the terminal growth and WACC is changed. The WACC has the most significant effect on the valuation.

Sensitivity analysis - terminal growth vs. WACC: Base case						
Fair value per share		WACC				
		4%	6%	8%	10%	12%
Terminal growth	1.0%	208	117	78	56	43
	1.5%	240	126	82	58	44
	2.0%	290	137	86	60	45
	2.5%	372	151	91	62	46
	3.0%	536	170	97	65	47

Source: Redeye Research

In the following chart, we illustrate our base case estimates until 2031. We have taken a conservative approach on the gross margin, which goes down to 58% in 2031, from 70% in 2020. The reason behind this is competition in the field of air cleaners (Facility solutions), which has reached a significant share of total sales (30%). However, the effect of the lower GM, combined with a somewhat lower organic growth, does not lower the EBIT margin to the same extent as one could imagine at first sight. This is due to sales provisions being lower in times where sales do not accelerate quickly. Therefore, we believe QleanAir should be able to defend the EBIT margin in good as well as bad times. Also, as sales increase, QleanAir should enjoy the benefits of operating leverage due to its high gross margins.

QleanAir Base case: 2016-2031 Sales and margins estimates



Source: Company data, Redeye Research

Bear case

In our bear case, we model that QleanAir will continue to execute on its growth plan but at a slower pace than our base case scenario. In this scenario, Cabin Solutions sees lower growth than in our base case and starts to see negative growth in 2028. We still model that Facility Solutions will be successful, but the sales growth in the period 2025-2031 is lower due to increased competition and that the current volumes show to be a temporary Covid effect. Room Solutions grows but fails to gain the traction it is looking for in the scenario due to USP regulation not being enforced.

The gross margin is similar to our base case due to new sales being relatively low, which positively affects the margin. Therefore, the "underlying gross margin is lower in this scenario relative to our base case scenario. As highlighted before, QleanAir's gross margin is higher on renewed contracts than new sales. Therefore, when sales growth is low, the margin stays relatively intact. This also shows in the EBIT margin, where sales-related costs are also lower.

We have set a terminal EBIT margin at 12%, which we consider pessimistic. However, even in this scenario, the fair value ends up at SEK 45 per share – implying a "mere" downside potential of 30%.

QleanAir: Bear case				
Assumptions	2021-2024	2025-2031	DCF-Value	
Sales CAGR, %	10%	2%	WACC	8%
EBIT margin, %	18%	16%	Net present value FCF '21-'24e, SEK m	212
			Net present value FCF '25-'31e, SEK m	288
Cabin Solutions sales CAGR, %	7%	-1%	Net present value terminal value '32e, SEK m	384
share of total sales	68%	58%		
Facility Solutions sales CAGR, %	18%	6%	EV, SEK m	884
share of total sales	21%	26%	Net debt, SEK m	211
Room Solutions sales CAGR, %	14%	8%	Value assos. Companies, SEK m	0
share of total sales	12%	16%	Value minorities, SEK m	0
Terminal				
Terminal growth FCF		2%	DCF-value, SEK m	673
Terminal EBIT margin		12%	Number of shares, m	14.9
Exit EV/EBIT multiple		13.4x	Estimated Fair value per share, SEK	45
Cabin Solutions % of sales		53%	Current share price, SEK	65
Facility Solutions % of sales		28%		
Room Solutions % of sales		18%	Potential/Risk	-30%

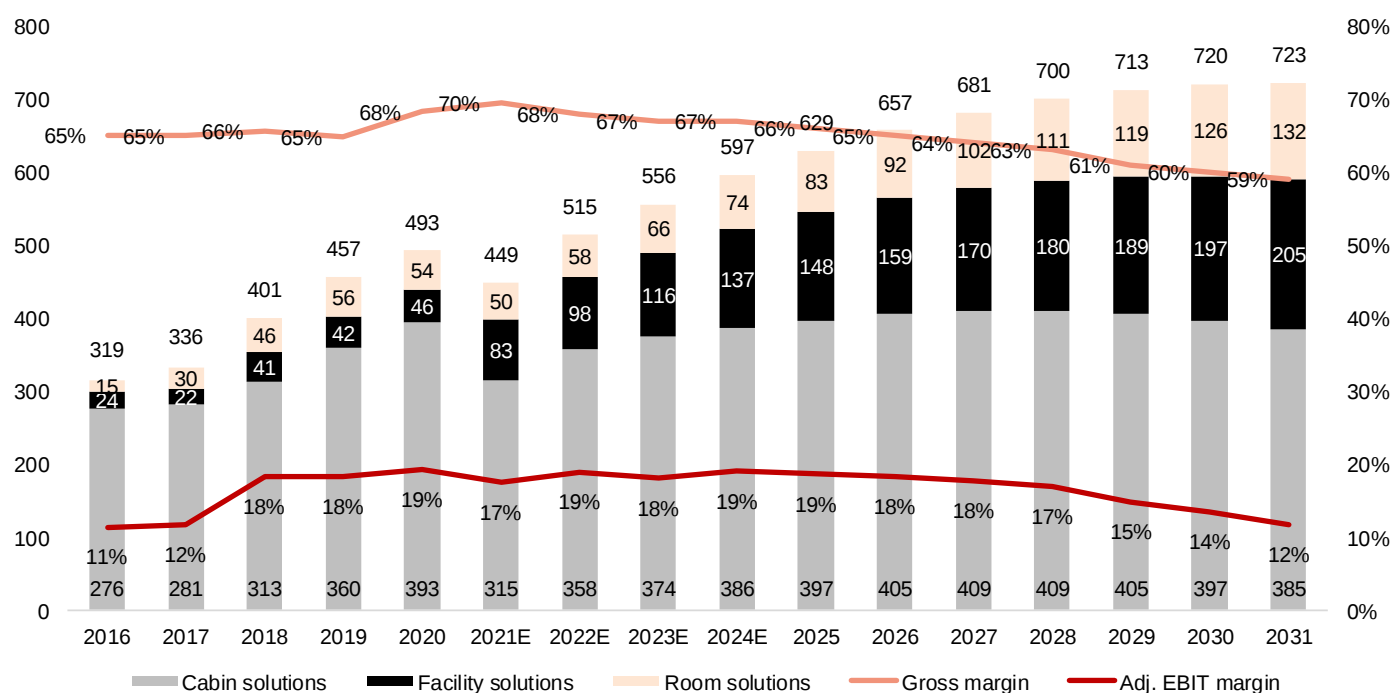
Source: Company data, Redeye Research

The following table illustrates the sensitivity of the base case valuation when the terminal growth and WACC is changed. The WACC has the most significant effect on the valuation.

Sensitivity analysis - terminal growth vs. WACC: Bear case						
Fair value per share		WACC				
		4%	6%	8%	10%	12%
Terminal growth	1.0%	106	61	42	30	23
	1.5%	121	65	43	31	24
	2.0%	145	71	45	32	24
	2.5%	184	78	48	33	25
	3.0%	262	87	50	34	25

Source: Redeye Research

QleanAir Bear case: 2016-2031 Sales and margins estimates



Source: Company data, Redeye Research

Bull case

However, in our bull case, we model that QleanAir will continue to execute on its growth plan to a greater extent than our base case. What differs from our base case is primarily the growth rate of Facility Solutions and Room Solutions, who will see even greater effects from business conditions going back to normal post-Covid than we expect in our base case, coupled with even more positive effects from legislations. Cabin solutions also see increased growth, due to QleanAir launching less-premium products in Japan, expanding the TAM beyond the current scope. We also believe in even greater cross-selling between segments from the growing customer base.

The gross margin is still very similar to our base case due to new sales having a negative effect on the gross margin. Therefore, the "underlying gross margin is higher in this scenario relative to our base case scenario.

We have set a terminal EBIT margin at 16%, which we consider relatively high in a terminal period, but still doable due to QleanAir operating in niche markets where its profitability is high and recurring revenues amount to nearly 60% of sales. This can be put in relation to QleanAir's financial target of 15-20% EBIT margin in the medium term.

QleanAir: Bull case				
Assumptions	2021-2024	2025-2031	DCF-Value	
Sales CAGR, %	17%	9%	WACC	8%
EBIT margin, %	22%	21%	Net present value FCF '21-'24e, SEK m	284
			Net present value FCF '25-'31e, SEK m	602
Cabin Solutions sales CAGR, %	14%	7%	Net present value terminal value '32e, SEK m	1211
<i>share of total sales</i>	67%	59%		
Facility Solutions sales CAGR, %	25%	12%	EV, SEK m	2,097
<i>share of total sales</i>	21%	27%	Net debt, SEK m	211
Room Solutions sales CAGR, %	21%	11%	Value assos. Companies, SEK m	0
<i>share of total sales</i>	12%	14%	Value minorities, SEK m	0
Terminal				
Terminal growth FCF		2%	DCF-value, SEK m	1,886
Terminal EBIT margin		19%	Number of shares, m	14.9
Exit EV/EBIT multiple		12.6x	Estimated Fair value per share, SEK	127
Cabin Solutions % of sales		56%	Current share price, SEK	65
Facility Solutions % of sales		29%		
Room Solutions % of sales		15%	Potential/Risk	95%

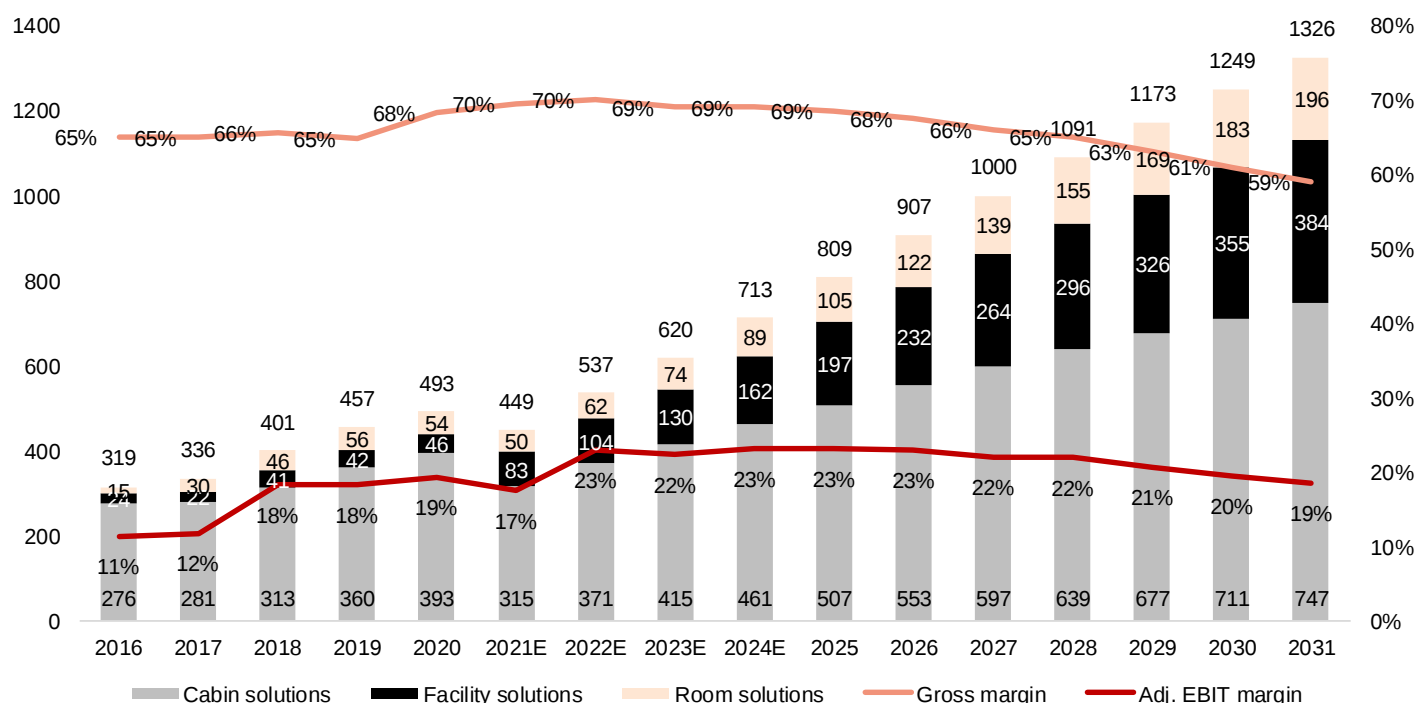
Source: Company data, Redeye Research

The following table illustrates the sensitivity of the base case valuation when the terminal growth and WACC is changed. The WACC has the most significant effect on the valuation.

Sensitivity analysis - terminal growth vs. WACC: Bull case						
Fair value per share		WACC				
		4%	6%	8%	10%	12%
Terminal growth	1.0%	308	173	115	83	63
	1.5%	358	186	121	86	65
	2.0%	432	203	127	89	66
	2.5%	555	224	134	92	68
	3.0%	802	253	143	96	70

Source: Redeye Research

QleanAir Bull case: 2016-2031 Sales and margins estimates



Source: Company data, Redeye Research

Peer comparison

The following tables illustrate QleanAir's profitability and sales growth in the coming years. It is evident that QleanAir offers high growth relative to the selected peer groups. Also, it has twice the EBIT margin relative to its peers (20% vs 11%). All in all, this results in a '21E-'23E EBIT CAGR of 22%, relative to the average of 12%. Furthermore, ROCE is higher than its peers, and it is truly evident when we adjust for the Goodwill related to Priveq's acquisition of the company in 2012. If such acquisition had not taken place, Goodwill would not exist, and we, therefore, believe one should adjust for this.

Company	Market cap	Net debt	EV	Share price	'21 sales	'22 sales	'23 sales	'21-'23 sales CAGR	'21 EBIT margin	'22 EBIT margin	'23 EBIT margin	'21-23 EBIT CAGR	'21 EBITDA margin	'22 EBITDA margin	'23 EBITDA margin	'21-23 EBITDA CAGR	'21 ROCE	'22 ROCE	'23 ROCE
Air / Ventilation																			
Lindab	19553	1520	20480	248	10106	10366	10854	4%	10.2%	11.9%	12.1%	13.2%	14.3%	16.2%	16.3%	10.6%	13.5%	15.7%	15.8%
Munters	13622	1990	15453	74	7192	7822	8210	7%	12.3%	13.6%	14.1%	14.4%	16.1%	17.5%	18.0%	12.9%	11.5%	13.1%	13.5%
Nederman	6520	1155	7626	186	4010	4497	4857	10%	11.3%	11.0%	11.0%	8.7%	13.0%	12.5%	12.4%	7.7%	12.9%	12.8%	12.9%
Systemair	16578	1112	18056	80	9118	9724	10311	6%	9.0%	10.2%	10.4%	14.6%	12.9%	13.7%	13.9%	10.5%	16.1%	18.2%	18.6%
Average	14068	1444	15403	147	7607	8102	8558	6%	10.4%	11.7%	11.9%	13.3%	14.1%	15.3%	15.4%	10.8%	13.5%	15.0%	15.2%
Median	15100	1338	16754	133	8155	8773	9260	7%	10.4%	11.7%	12.0%	14.5%	14.3%	15.4%	15.7%	11.7%	13.2%	14.4%	14.7%
QleanAir	966	205	1171	65	449	521	582	14%	17.5%	20.5%	19.9%	21.6%	23.7%	24.6%	24.2%	14.9%	18.3%	22.2%	21.7%
																Excl. GW:	91.2%	77.9%	60.8%
Nordic growth Similar gross margins, profitability and growth																			
SinterCast	1001	-20	979	141	107	147	163	23%	28.1%	38.5%	41.2%	49.3%	31.7%	41.4%	43.5%	44.5%	25.9%	42.1%	43.2%
Mips	24783	-392	24749	947	533	682	841	26%	51.1%	52.0%	52.6%	27.4%	53.5%	54.1%	54.6%	27.0%	49.8%	52.1%	52.1%
Garø	11100	79	11167	222	1322	1564	1894	20%	15.5%	14.6%	14.2%	14.5%	18.0%	16.8%	16.2%	13.7%	39.1%	36.9%	36.0%
Assa abloy	265451	32778	305242	252	94907	107252	112658	9%	15.4%	16.0%	16.6%	13.2%	19.1%	19.6%	20.2%	12.1%	13.3%	14.4%	15.2%
Nibe	206107	5990	219194	116	31228	34155	37346	9%	14.8%	14.7%	14.8%	9.7%	19.2%	19.0%	19.0%	8.8%	14.6%	14.8%	14.9%
Tomra	71953	1620	74190	486	10820	11746	13425	11%	14.2%	14.4%	14.7%	13.1%	22.4%	22.3%	22.3%	11.2%	16.3%	16.9%	18.3%
Troxø	20850	412	20573	348	2521	2733	2976	9%	22.1%	21.5%	21.1%	6.2%	25.7%	25.2%	24.8%	6.8%	24.9%	25.6%	26.5%
Electrolux P.	19107	610	18550	68	7904	9298	9761	11%	9.0%	11.9%	12.6%	31.0%	13.0%	15.5%	16.1%	23.8%	13.8%	19.6%	19.4%
Dometic	43164	10938	47069	135	20912	25907	27017	14%	14.5%	14.5%	15.0%	15.7%	18.4%	18.5%	19.2%	16.0%	8.0%	9.6%	9.9%
Thule	45547	1068	46891	436	10113	10178	10713	3%	22.6%	21.7%	21.8%	1.1%	24.0%	23.2%	23.3%	1.4%	32.0%	29.9%	30.2%
CTT systems	2706	20	2751	216	159	313	388	56%	21.4%	37.7%	38.2%	108.6%	28.3%	40.3%	40.7%	87.4%	13.0%	39.5%	41.2%
Malmbergs E.	456	62	518	63	647	673	693	3%	8.3%	9.2%	9.8%	12.2%	13.9%	14.7%	15.3%	8.5%	13.0%	12.9%	13.8%
Bulten	1889	653	2322	90	4036	4435	4613	7%	6.8%	7.5%	7.8%	14.2%	10.9%	11.5%	12.0%	12.2%	11.2%	13.0%	13.7%
Duni	5113	1212	6532	109	4890	5379	5679	8%	5.2%	9.0%	9.7%	48.2%	10.9%	14.2%	14.7%	25.1%	5.5%	9.9%	11.0%
IAR	1433	-59	1421	105	383	465	530	18%	23.1%	27.6%	30.2%	34.5%	36.3%	41.1%	43.6%	28.9%	11.8%	15.1%	17.5%
Average	49051	3582	52267	245	19490	21090	22082	6%	11.5%	11.9%	12.5%	11.0%	15.5%	15.9%	16.5%	9.8%	19.3%	23.0%	23.8%
Median	19979	632	19561	166	4463	4907	5146	7%	9.3%	10.9%	11.5%	19.1%	13.2%	14.8%	15.3%	15.4%	14.2%	16.6%	17.9%
QleanAir	966	205	1171	65	449	521	582	14%	17.5%	20.5%	19.9%	21.6%	23.7%	24.6%	24.2%	14.9%	18.3%	22.2%	21.7%
																Excl. GW:	91.2%	77.9%	60.8%
Listed Competitors																			
Grifols	13697	7039	26719	14	54293	59037	63627	8%	19.5%	21.7%	23.1%	17.9%	25.7%	27.7%	28.9%	14.9%	6.8%	8.1%	8.9%
Zehnder	1003	-132	1096	103	7145	7472	7788	4%	10.0%	9.9%	10.1%	4.9%	13.7%	13.4%	13.6%	4.0%	17.5%	16.6%	16.1%
Average	7350	3453	13907	58	30719	33254	35708	8%	18.4%	20.4%	21.7%	17.1%	24.3%	26.1%	27.3%	14.2%	12.2%	12.4%	12.5%
Median	7350	3453	13907	58	30719	33254	35708	8%	18.4%	20.4%	21.7%	17.1%	24.3%	26.1%	27.3%	14.2%	12.2%	12.4%	12.5%
QleanAir	966	205	1171	65	449	521	582	14%	17.5%	20.5%	19.9%	21.6%	23.7%	24.6%	24.2%	14.9%	18.3%	22.2%	21.7%
																Excl. GW:	91.2%	77.9%	60.8%

Source: Factset, Redeye Research

Peer valuation

The valuation of QleanAir is also significantly lower than the average of its peer groups. The '22E P/E of QleanAir stands at 13x, relative to the peer groups' average of 22x. Furthermore, the '22E EV/EBIT of QleanAir stands at 10x, relative to the peer groups' average of 17x. This valuation seems even lower when we combine it with QleanAir's expected '21E-'23E EBIT CAGR of 22%, relative to the peer group's '21E-'23E EBIT CAGR of 12%.

All in all, we believe QleanAir has above average economics but trades significantly below the average company. We also wish to highlight that nearly 60% of QleanAir's sales are recurring, which de-risks operations significantly, which we saw during the financial crisis in 2008-2010, where sales remained flat.

If we use the same '22E EV/EBIT and '22E P/E of the peer groups', we derive a **fair value of SEK 102 per share** (when discounted to today's value using an 8% discount factor) – a **potential of 57% relative today's share price of SEK 65**.

Company	'21 P/E	'22 P/E	'23 P/E	'21 EV/EBIT	'22 EV/EBIT	'23 EV/EBIT	'21 EV/EBITDA	'22 EV/EBITDA	'23 EV/EBITDA	'21 EV/sales	'22 EV/sales	'23 EV/sales	'21 FCF yield	'22 FCF yield	'23 FCF yield	'21 div. yield	'22 div. yield	'23 div. yield
Air / Ventilation																		
Lindab	20	21	20	17.9	17.0	15.9	13.4	12.8	11.9	2.1	2.1	2.0	2.6%	4.4%	5.0%	1.6%	1.8%	2.0%
Munters	22	18	17	17.1	14.5	13.3	13.3	11.7	11.0	2.2	2.0	1.9	2.7%	4.6%	4.9%	1.4%	1.7%	1.9%
Nederman	23	20	18	17.2	15.7	14.5	14.9	13.8	12.9	1.9	1.7	1.6	3.9%	3.6%	4.1%	0.0%	1.8%	2.0%
Systemair	28	24	22	22.0	18.3	16.8	15.7	14.1	12.8	2.0	1.9	1.7	2.8%	3.0%	3.4%	1.3%	1.4%	1.5%
Average	23	21	19	18.5	16.4	15.1	14.3	13.1	12.1	2.0	1.9	1.8	3.0%	3.9%	4.3%	1.1%	1.7%	1.8%
Median	22	21	19	17.5	16.3	15.2	14.2	13.3	12.4	2.0	1.9	1.8	2.7%	4.0%	4.5%	1.4%	1.7%	1.9%
QleanAir	16	13	12	14.6	10.3	9.1	10.8	8.6	7.5	2.5	2.1	1.8	5.9%	8.0%	8.7%	2.3%	2.6%	3.1%
Nordic growth Similar gross margins, profitability and growth																		
SinterCast	29	15	13	32.6	17.2	14.6	28.8	16.1	13.8	9.1	6.6	6.0	2.8%	4.8%	6.4%	3.5%	6.6%	7.6%
Mips	117	90	72	90.7	69.5	55.8	87.4	65.5	51.7	46.4	36.2	29.4	0.9%	1.0%	1.3%	0.5%	0.7%	0.8%
Garo	70	64	55	55.6	49.8	42.4	45.9	42.0	35.8	8.6	7.3	6.0	0.6%	1.0%	0.9%	0.7%	0.8%	0.9%
Assa abloy	26	23	21	21.0	17.8	16.5	16.8	14.5	13.7	3.2	2.8	2.7	2.8%	4.1%	4.5%	1.7%	1.8%	2.0%
Nibe	75	69	63	51.5	47.1	42.8	39.2	36.1	33.1	7.6	7.0	6.4	1.1%	1.5%	1.6%	0.4%	0.4%	0.5%
Tomra	70	63	53	50.0	45.5	39.0	31.7	29.5	25.7	7.1	6.6	5.7	1.3%	1.3%	1.4%	0.7%	0.8%	0.9%
Troax	50	47	44	36.9	35.0	32.8	31.8	29.9	27.8	8.2	7.5	6.9	1.6%	2.0%	1.9%	1.0%	1.1%	1.2%
Electrolux P.	36	23	21	26.2	16.1	14.6	18.1	12.1	11.2	2.3	1.9	1.9	0.4%	5.2%	5.8%	0.8%	1.3%	1.4%
Dometic	21	16	15	15.4	12.0	11.0	12.0	9.5	9.0	2.2	1.8	1.7	-12.1%	4.7%	6.8%	1.9%	2.2%	2.5%
Thule	26	27	26	20.4	21.1	20.0	19.1	19.7	18.6	4.6	4.6	4.3	2.5%	3.1%	3.4%	2.7%	2.8%	3.0%
CTT systems	124	31	24	81.6	23.5	18.8	61.7	22.0	17.6	17.5	8.9	7.2	0.6%	3.5%	3.6%	0.7%	2.3%	3.2%
Malmbergs E.	11	9	9	9.6	8.4	7.6	5.8	5.2	4.9	0.8	0.8	0.7	17.9%	19.7%	21.8%	3.5%	3.9%	4.3%
Bulten	12	9	7	9.3	7.1	6.1	5.3	4.6	4.2	0.6	0.5	0.5	-4.5%	1.0%	8.8%	3.9%	5.0%	6.7%
Duni	34	15	13	25.9	13.5	11.8	12.3	8.5	7.8	1.3	1.2	1.1	2.3%	4.8%	5.8%	0.0%	4.6%	4.6%
IAR	22	15	12	16.0	11.0	8.9	10.2	7.4	6.1	3.7	3.0	2.7	2.3%	3.3%	5.3%	0.0%	2.3%	2.7%
Average	46	33	29	34.4	25.1	21.8	26.9	20.4	17.8	7.7	6.1	5.2	1.5%	4.2%	5.5%	1.7%	2.6%	2.9%
Median	32	23	21	26.1	17.5	15.6	18.6	15.3	13.7	4.2	3.8	3.5	1.4%	3.4%	4.9%	0.9%	2.3%	2.6%
QleanAir	16	13	12	14.6	10.3	9.1	10.8	8.6	7.5	2.5	2.1	1.8	5.9%	8.0%	8.7%	2.3%	2.6%	3.1%
Listed Competitors																		
Grifols	13	11	9	16.8	13.9	11.8	12.7	10.7	9.4	3.2	3.0	2.8	1.8%	2.9%	3.5%	2.4%	2.7%	3.2%
Zehnder	19	20	19	14.2	13.8	13.0	10.4	10.0	9.4	1.4	1.4	1.3	4.6%	4.6%	5.3%	1.8%	1.9%	2.1%
Average	16	15	14	15.5	13.8	12.4	11.6	10.3	9.4	2.3	2.2	2.0	3.2%	3.8%	4.4%	2.1%	2.3%	2.7%
Median	16	15	14	15.5	13.8	12.4	11.6	10.3	9.4	2.3	2.2	2.0	3.2%	3.8%	4.4%	2.1%	2.3%	2.7%
QleanAir	16	13	12	14.6	10.3	9.1	10.8	8.6	7.5	2.5	2.1	1.8	5.9%	8.0%	8.7%	2.3%	2.6%	3.1%

Source: Factset, Redeye Research

People

Management

We consider the management team of QleanAir to hold great expertise in the field of air cleaning, and a highly relevant background for each role, with many having decades of background in the industry. CEO Christina Lindstedt has held operational roles at QleanAir since May 2020 and has been a member of the board since 2016. She has held various executive roles for Electrolux, which we consider meritorious. Overall, the ownership of the management team is not low and not high. However, the CEO holds shares for a worth of nearly SEK 4m, which we find positive. CFO Henrik Resmark, who has been at QleanAir since 2013, holds shares for a worth of nearly SEK 2m. In addition, there are stock option incentives. There is no reporting obligation for individuals where the columns say no data, and we have not found any shares addressable to the name. As there are foreign members of the management, the holding structure could be blurred.

Senior Management

Name	Position	In current position since	Number of shares	Ownership	Notes
Christina Lindstedt	CEO, Acting VP of Product Management & Business Development	2020	60000	0.03%	Christina Lindstedt joined QleanAir Scandinavia as COO in May 2020 and as CEO in August 31, 2020. Prior to that she has served as a board member of QleanAir since 2016. Christina has 20 years of experience from various international, business leadership roles at Electrolux, Sony Ericsson and Sony, based in Sweden and abroad. Before joining QleanAir she served as a business advisor through own company to mainly international B2B companies and as a board member.
Henrik Resmark	CFO	2013	30000	0.02%	Henrik Resmark was appointed as Chief Financial Officer for QleanAir Scandinavia in March 2013 and currently head the finance organisation. Henrik held other CFO and corporate finance positions before coming to QleanAir Scandinavia; most notably at Aros Securities / Nordea Securities, from 1998–2003 and NeuroNova (Newron), from 2003–2013.
Henrik Fernsund	CMO	2019	No data	No data	Henrik Fernsund joined in 2019 as Global Marketing Director to lead QleanAir Scandinavia's global marketing and to further develop the QleanAir Scandinavia brand. Henrik has spent over 5 years at the global air purifier brand Blueair and has over 20 years of experience in creating marketing and brand development both at marketing departments and agencies.
Pär Bergdahl	COO	2020	No data	No data	Pär Bergdahl joined the company in 2016 as VP Strategic Sourcing, advanced to VP Operations in 2017 and promoted to COO Oct 2020 in with the global responsibility of Operations, R&D, and IT. Pär has held positions over the past decade at companies such as Munters, and Cramo.
Glen Shimizu	Head of Sales Japan	2010	No data	No data	Glen Shimizu was appointed as the Country Manager of Japan effective August 2010. In this role, Glen has sales, accounting and operational responsibilities related specifically to the Japanese market. Previous to his role at QleanAir Scandinavia, Glen was an Executive Marketing Director at General Electric and Representative Director for Steelcase Japan.
Brad Ballantine	Head of Sales US	2017	No data	No data	Brad Ballantine joined QleanAir Scandinavia in May 2017 as President of the US subsidiary. Brad is responsible the development and management of QleanAir Scandinavia's fast growing pharmacy clean-room business in the US. Brad has an extensive background in operations and financial management with emerging businesses in the healthcare, retail and marketing consulting industries.
Fredrik Aminoff	VP European Sales	2020	18942	0.01%	Fredrik Aminoff joined QleanAir Scandinavia in 2015 as Nordic Sales Manager and advanced to Head of Sales Northern Europe in April 2018. As of March 2020, Fredrik has been promoted to VP European Sales, heading the European division's sales and business development.
Total			108942	0.06%	

Source: Company data, Holdings, Redeye Research

Board

The board's ownership is relatively low, however largely explained by Priveq (largest owner) having representatives on the board, but also possibly due to new board members. QleanAir recently added Towe Resson and Johan Ryrberg as board members, which brings relevant and valuable experience to the board - especially Ryrberg, as he has held high-level positions at Camfil, which we consider to be one of QleanAir's competitors. Previously, there was no board member who we considered to hold pure air cleaning background. However, Chairman Bengt Engström holds great expertise in home appliances, following his background in Fujitsu and Whirlpool. We find this very positive. Other board members have experience from the financial sector and have ties to Priveq.

Priveq is a Swedish private equity firm sprung out of Skandia investment in 1983. Priveq invests in entrepreneur-driven companies with revenues of SEK 100-1000m with a strong market position and solid profitability, where it sees growth opportunities to be seized. In our view, Priveq holds a solid track record, with over 150 investments in the Nordics and 25 IPOs such as Hemtex, CSAM, QleanAir.

Board					
Name	Position	In current position since	Number of shares	% of Capital/Votes	Note
Bengt Engström	Chairman	2020	15000	0.01%	Mr. Engström holds severe experience in the home appliances sector, having held high level positions for more than 20 years at the likes of Whirlpool, Fujitsu and Duni. He serves as a member of several boards, such as Bure, Scanfil and Real Holding
Johan Westman	Member	2020	5000	0.00%	Johan holds 30 years of international business experience in different leading rolls including VP of Marketing, Managing Director, and CEO positions. He holds the CEO position at Metenova, and is a member of the board at Callidus.
Mats Hjerpe	Member	2012	0	0.00%	Mats holds experience as investment manager at Priveq where he has been partner for eight years. His area of responsibility in Priveq ranges from identifying new profitable investment opportunities, and implementing growth strategies. He also holds board assignments in several of Priveq's portfolio companies.
Towe Resson	Member	2021	0	0%	Towe Holds more than 20 years of experience in the home appliances sector. She has spent 4 years at T Ectrolux, and the last 15 years at Husqvarna group, where she is the acting VP of Global Design. She serves on the board of Brio, and holds an MSc in industrial design from the university of Gothenburg.
Johan Ryrberg	Member	2021	0	0%	Johan holds more than 20 years experience from the air cleaning industry, where he spent 20 years at Camfil during 1995-2015, of which as executive VP & CFO during the last 15 years of the period. He holds a BSc from Stockholm School of Economics.
Total			20000	0.01%	

Source: Company data, Holdings, Redeye Research

Ownership

Priveq is still today the largest owner of QleanAir with 24% of the shares and votes, down from 42% earlier this year. This is in line with Priveq's investment philosophy. We consider Priveq to be a credible main owner, as it has a strong track record since its investment in QleanAir in 2012. Since then, revenues have grown at a CAGR of 12% and margins have also improved. However, as with most of its historical investments, we believe Priveq will look to exit the share in the coming years - as it would align with its investment approach.

When looking at the 111 historical investments and exits of Priveq, ranging from 1983 to 2021, we find that the average holding period is 5.5 years, for a standard deviation of 4 years. This further supports the idea of QleanAir being divested rather soon, as it has been held for 10 years.

Major Shareholders		
#	Owner	% of Capital and votes
1	Qevirp 41	23.6%
2	BankInvest	13.1%
3	Brown Brothers Harriman	5.5%
4	Enter Småbolagsfond	4.9%
5	Taaleri Nordic Value Equity Fund	4.8%
6	Livförsäkringsbolaget Skandia	4.6%
7	LGT Bank Ltd	2.7%
8	Avanza Pension	2.5%
9	Sensor Sverige Select	2.0%
10	BNP Paribas Lux.	1.3%
Ten largest shareholders		65.2%

Source: Company data, Holdings, Redeye Research

Summary Redeye Rating

The rating consists of three valuation keys, each constituting an overall assessment of several factors that are rated on a scale of 0 to 1 points. The maximum score for a valuation key is 5 points.

People: 4

The People rating is based on quantitative scores in seven sub-categories: Passion, Execution, Capital Allocation, Communication, Compensation, Ownership, and Board. Christina Lindstedt took office in 2020, after being a member of the board since 2016. Christina has 20 years of operational experience from various leadership roles at Electrolux, Sony Ericsson and Sony, which we find meritorious. Also, the CFO has spent nearly 10 years, and the R&D manager has spent 25 years with the company. The company's main owner is Priveq, who has been the sole owner of QleanAir since 2012 until its IPO in 2019. Other owners include institutional investors. The board holds great expertise within consumer goods in general and air cleaning in particular.

Business: 5

The Business rating is based on quantitative scores in five sub-categories: Business Scalability, Market Structure, Value Proposition, Economic Moat, and Operational Risks. QleanAir operates in a large but fragmented market. It is difficult for customers to determine what products are needed, and where to install them. This results in significant barriers, further spurred by the investment cost the products entails. QleanAir has an attractive value proposition that allows it to gain market shares due to its Clean Air as a Service offering. QleanAir has high gross margins (70%) and a high degree of recurring revenue (60%), allowing operational leverage and great predictability – reducing the operational and financial risk. The company has a clear strategy to grow organically, capitalising on its broad customer base through cross-selling and releasing new products to target more customer segments, amongst other things.

Financials: 4

The Financials rating is based on quantitative scores in five sub-categories: Earnings Power, Profit Margin, Growth Rate, Financial Health, and Earnings Quality. QleanAir was founded In 1988, and has since 2001 grown its sales from SEK 36m to SEK 490m in 2020 - a 19-year CAGR of 15%. QleanAir has posted gross margins in the region of 65-70% during the last 5 years and has around 60% recurring revenues (3-year lease contracts). This truly showed its worth during the financial crisis in 2008, where sales remained flat for the period. Also, with outsourced production, limited CAPEX needs, and negative working capital – cash generation is very high. QleanAir scores high in all sub-categories, apart from financial health, where it scores lower due to its high debt. However, as QleanAir's capital requirements are low, and nearly 60% of revenues are fixed on 3-year contracts, the company should be able to use debt to a greater extent instead of equity, as opposed to if it only relied on one-time sales.

	2020	2021E	2022E	2023E					
INCOME STATEMENT					DCF Valuation Metrics		Sum FCF (SEKm)		
Net Sales	493	449	521	582	Initial Period (2021-2024)				241
Cost of Goods Sold	-157	-137	-161	-186	Momentum Period (2025-2031)				437
Gross Profit	336	312	359	396	Stable Period (2032-)				806
Operating Expenses	-215	-206	-231	-255	Firm Value				1484
EBITDA	124	106	128	141	Net Debt				211
Depreciation & Amortization	-29	-28	-21	-25	Equity Value				1273
EBIT	95	78	107	116	Fair Value per Share				86
Net Financial Items	-9	-7	-9	-9					
EBT	86	72	98	107	CAPITAL STRUCTURE				
Income Tax Expenses	19	10	21	24	Equity Ratio	2020	2021E	2022E	2023E
Non-Controlling Interest	0	0	0	0	Debt to equity	0.3	0.3	0.4	0.4
Net Income	67	62	76	83	Net Debt	1.6	1.3	1.0	0.8
BALANCE SHEET					Capital Employed	199	173	130	86
Assets					Working Capital Turnover	394	430	481	534
Current assets						-8.8	-8.7	-8.8	-8.8
Cash & Equivalents	53	78	121	166	GROWTH				
Inventories	27	24	28	32	Sales Growth	8%	-9%	16%	12%
Accounts Receivable	34	31	36	40	Basic EPS Growth	-905%	-8%	23%	9%
Other Current Assets	53	49	55	61	Adjusted Basic EPS Growth	52%	-8%	23%	9%
Total Current Assets	167	182	240	299	PROFITABILITY				
Non-current assets					ROE	53%	35%	35%	31%
Property, Plant & Equipment, Net	42	43	53	63	ROCE	24%	18%	22%	22%
Goodwill	344	344	344	344	ROIC	23%	20%	23%	25%
Intangible Assets	13	17	23	28	EBITDA Margin (%)	25%	24%	25%	24%
Right-of-Use Assets	16	16	16	16	EBIT Margin (%)	19%	17%	20%	20%
Shares in Associates	0	0	0	0	Net Income Margin (%)	14%	14%	15%	14%
Other Long-Term Assets	5	5	5	5	VALUATION				
Total Non-Current Assets	419	424	440	456	Basic EPS	4.5	4.2	5.1	5.6
Total Assets	585	606	680	755	Adjusted Basic EPS	4.5	4.2	5.1	5.6
Liabilities					P/E	11.8	15.8	12.8	11.7
Current liabilities					EV/Sales	2.0	2.6	2.1	1.8
Short-Term Debt	21	21	21	21	EV/EBITDA	8.0	10.8	8.6	7.5
Short-Term Lease Liabilities	10	10	10	10	EV/EBIT	10.4	14.6	10.4	9.2
Accounts Payable	25	22	26	30	P/B	5.0	5.1	4.0	3.3
Other Current Liabilities	135	123	143	160	SHAREHOLDER STRUCTURE				
Total Current Liabilities	191	176	200	220			CAPITAL %	VOTES %	
Non-current liabilities					Qevirp 41		23.6%	23.6%	
Long-Term Debt	230	230	230	230	BankInvest		13.1%	13.1%	
Long-Term Lease Liabilities	7	7	7	7	Livförsäkringsbolaget Skandia		5.5%	5.5%	
Other Long-Term Liabilities	0	0	0	0	Taaleri Nordic Value Equity Fund		4.9%	4.9%	
Total Non-current Liabilities	237	237	237	237	Enter Småbolagsfond		4.8%	4.8%	
Non-Controlling Interest	0	0	0	0	SHARE INFORMATION				
Shareholder's Equity	157	193	244	297	Reuters code			QAIR.ST	
Total Liabilities & Equity	585	606	680	755	List			First North	
CASH FLOW					Share price			65	
NOPAT	74	68	83	90	Total shares, million			14.9	
Change in Working Capital	-25	-5	8	7	MANAGEMENT & BOARD				
Operating Cash Flow	72	81	106	115	CEO			Christina Lindstedt	
Capital Expenditures	-21	-20	-23	-25	CFO			Henrik Resmark	
Investment in Intangible Assets	-5	-4	-5	-6	Chairman			Bengt Engström	
Investing Cash Flow	-26	-24	-28	-31	ANALYSTS				
Financing Cash Flow	-47	-32	-35	-39				Redeye AB	
Free Cash Flow	46	57	78	84	Mattias Ehrenborg			Mäster Samuelsgatan 42, 10tr	
					Henrik Alveskog			111 57 Stockholm	

Redeye Rating and Background Definitions

Company Quality

Company Quality is based on a set of quality checks across three categories; PEOPLE, BUSINESS, FINANCE. These are the building blocks that enable a company to deliver sustained operational outperformance and attractive long-term earnings growth.

Each category is grouped into multiple sub-categories assessed by five checks. These are based on widely accepted and tested investment criteria and used by demonstrably successful investors and investment firms. Each sub-category may also include a complementary check that provides additional information to assist with investment decision-making.

If a check is successful, it is assigned a score of one point; the total successful checks are added to give a score for each sub-category. The overall score for a category is the average of all sub-category scores, based on a scale that ranges from 0 to 5 rounded up to the nearest whole number. The overall score for each category is then used to generate the size of the bar in the Company Quality graphic.

People

At the end of the day, people drive profits. Not numbers. Understanding the motivations of people behind a business is a significant part of understanding the long-term drive of the company. It all comes down to doing business with people you trust, or at least avoiding dealing with people of questionable character.

The People rating is based on quantitative scores in seven categories:

- Passion, Execution, Capital Allocation, Communication, Compensation, Ownership, and Board.

Business

If you don't understand the competitive environment and don't have a clear sense of how the business will engage customers, create value and consistently deliver that value at a profit, you won't succeed as an investor. Knowing the business model inside out will provide you some level of certainty and reduce the risk when you buy a stock.

The Business rating is based on quantitative scores grouped into five sub-categories:

- Business Scalability, Market Structure, Value Proposition, Economic Moat, and Operational Risks.

Financials

Investing is part art, part science. Financial ratios make up most of the science. Ratios are used to evaluate the financial soundness of a business. Also, these ratios are key factors that will impact a company's financial performance and valuation. However, you only need a few to determine whether a company is financially strong or weak.

The Financial rating is based on quantitative scores that are grouped into five separate categories:

- Earnings Power, Profit Margin, Growth Rate, Financial Health, and Earnings Quality.

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Redeye Rating (2021-10-20)

Rating	People	Business	Financials
5p	33	14	4
3p - 4p	134	121	41
0p - 2p	5	37	127
Company N	172	172	172

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Mattias Ehrenborg owns shares in the company : No

Henrik Alveskog owns shares in the company : No

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