Nightingale Health

Investment research

03/08/2021

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IMPORTANT INFORMATION TO THE READER

A promise in preventive health care

Nightingale is a technology company built around blood analysis that tries to reduce lifestyle diseases through preventive health care. The preventive health care market has considerable global potential and Nightingale's competitiveness seems promising. Even though the risks related to the functionality of the technology are clearly starting to subside, the commercialization of the technology is only in its initial stages. The investor carries a considerable risk related to the success of the commercialization, and thus the company's risk profile is not suitable for those looking for a stable investment target.

Nightingale Health is a technology company built around blood analysis

Nightingale is a Finnish health technology company that develops and sells a blood analysis platform to reduce the risks of lifestyle diseases. Nightingale's key technological breakthrough is developing the generally known NMR technology for testing high volumes of blood samples. Nightingale's technology has enabled analyzing of over 1 million blood samples from Biobanks based on which the company has developed risk predictions for over 1,000 lifestyle dependent diseases. Based on the blood sample they give, the user gets information about their health from the Nightingale app that has been piloted in Finland during 2020. Nightingale seeks funding from the stock exchange for large-scale commercialization of its technology.

Preventive health care is a global growth market that solves significant problems

Caring for people with chronic diseases forms a considerable share of health care costs, but most of diseases could be avoided by making lifestyle changes. The market is not new, but so far there is no solution for large-scale prevention of lifestyle diseases on the market. Nightingale only has a few direct competitors and their technology only partially focuses on preventing the same diseases. In addition, the coverage and cost level of Nightingale's technology is ahead of its competitors, demonstration of which is Biobanks' confidence in the company as an analyzer of their samples.

Nightingale's technology is quite mature, but commercialization is still in its initial stages

In our view, Nightingale's technology is quite mature and scientifically validated and the product development risks that are typical for a company that develops biotechnology are slowly giving way. Nightingale plans to combine users and service providers on a health data platform and will collect income flow from both. The company has signed its first partner agreement that support user acquisition for the platform but no service providers are involved and the platform is not generating revenue yet. Commercialization is in its initial stages and may well fail. There is also a lot of uncertainty connected with the size of income flow the business model can generate. For investors, confidence in Nightingale's technology working and the potential to create value for the users in the long term is key. It can take several years to reach a commercial breakthrough, which is why the investor should examine the company over a very long period.

IPO priced closer to the lower end of the fair price range we estimate

We estimate Nightingale's fair value to be in a wide range between EUR 200 and 500 million reflecting the extremely high-risk profile and, on the other hand, a very high return potential. If the investor believes the commercialization of the company's technology is internationally successful in the next 10 years, according to our estimates the share offers good double-digit annual earnings expectation at this valuation level. So far, it is, however, extremely hard to assess how many years it will take to build a commercially viable concept around the technology.

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Valuation

Inderes' estimate of the company's fair market value before the IPO:

Some EUR 200 to 500 million

Market value based on the subscription price:

Around EUR 300* million

Key indicators** (with EUR 300 million pre-money equity value)

	2020	2021e	2022e	2023e
Revenue	1.6	2.0	2.6	9.0
Growth %	-23%	28%	26%	253%
EBIT adjusted	-3.4	-9.8	-7.3	-13.1
EBIT % adjusted	-214.5%	-482.0%	-285.5%	-145.1%
Net profit	-3.8	-18.6	-7.7	-16.2
EV/EBIT (adjusted)	neg.	neg.	neg.	neg.
EV/EBITDA	neg.	neg.	neg.	neg.
EV/Revenue	>100	>100	>100	38.1

Source: Inderes

*Market value prior to IPO is EUR 298.6 million based on listing price
**Nightingale's accounting period ends on June 30. - e.g., 2019 covers the period July 1, 2018 to June 30, 2019.

Inderes' estimate on Nightingale's pre-money equity value, EUR billion
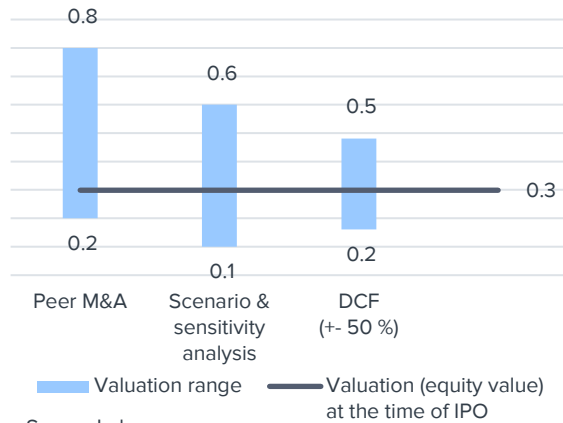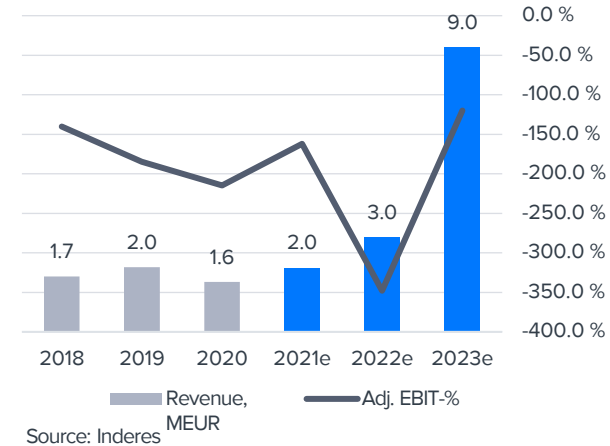
	Peer M&A	Scenario & sensitivity analysis	DCF (+- 50 %)
	0.8	0.6	0.5
	0.2	0.1	0.2

Valuation range — Valuation (equity value) at the time of IPO: 0.3

Source: Inderes

Revenue and EBIT-%

	2018	2019	2020	2021e	2022e	2023e
Revenue, MEUR	1.7	2.0	1.6	2.0	3.0	9.0

Adj. EBIT-%

Source: Inderes

MCAP
299
EUR million

EV
324
EUR million

EV/EBIT
-47.1
2022e

📈 Value drivers

- Huge growing global market supported by mega trends
- Competitive and cost-efficient technology for predicting disease risks from blood samples
- Platform-based, scalable business model that complement current players
- Strong position as analyzer of Biobanks' blood samples
- Credible investors support internationalization as partners

⚠ Risk factors

- Business model proving inoperative
- Slower than expected progress in the implementation of new technology in a conservative industry
- Data breach including personal health data
- Not reaching ambitious targets and drop in the valuation level that is pricing a successful commercialization
- Need for new funding
- Competing technologies

〽 Valuation

- Valuation methods exceptionally uncertain
- Valuation extremely sensitive to assumptions on business model parameters
- Valuation extremely sensitive to changes in the outlook of Nightingale's business development

Lähde: Inderes

Contents

Nightingale Health in brief

Nightingale is a biotechnology company that develops and sells a blood analysis platform to reduce the risks of lifestyle diseases. The key benefit for the consumer is comprehensible information about one's own long-term health and its development by changing one's own actions. Companies that offer health-related services get new customer flow though the platform.

2013
Year when current operative activities started

2021
Planned IPO

+300
Published peer reviewed studies on the company's technology

>1 million
Blood samples analyzed with company technology

>1,000
Extensive risk analysis of diseases based on biomarkers in blood

70
Total personnel (January 1, 2021) of which around 25% have doctorate degrees

EUR 40 million
Funding raised since July 1, 2017 and by the end of 2020

- Nightingale focuses on developing the testing method and risk predictions for diseases
- Information on the technology is distributed to the scientific community and the scientific community is included in assessing the functionality, e.g., the universities of Oxford and Bristol
- The platform analyses e.g., the samples of the UK Biobank and related disease data and create the first models that predict the risk of getting a disease
- Business clearly loss-making and revenue mainly comes from research institutions that maintain their independence by paying
- Research is funded with capital investments and debt financing
- Technology matures and is validated with the scientific community

- Nightingale starts commercializing the technology with its own laboratories: in 2020 the consumer service is tested in Finland
- Bridge funding at the end of 2020 before the planned IPO in early 2021 to strengthen working capital
- Agreement with Estonian Biobank on bringing the blood samples of 200,000 people to Nightingale's consumer platform (February 2021)
- Negotiations on first commercial agreements in Finland based on the new business model (H1/21)
- Piloting of at-home tests for the first 10,000 consumers in Finland: planned to start in Q2/2021

Chart axis labels: 2013, 2014, 2015, 2016, 2017, FY2018 (1.7), FY2019 (2.0), FY2020 (1.6), FY2021e, FY2022e, FY2023e

■ Revenue, EUR million
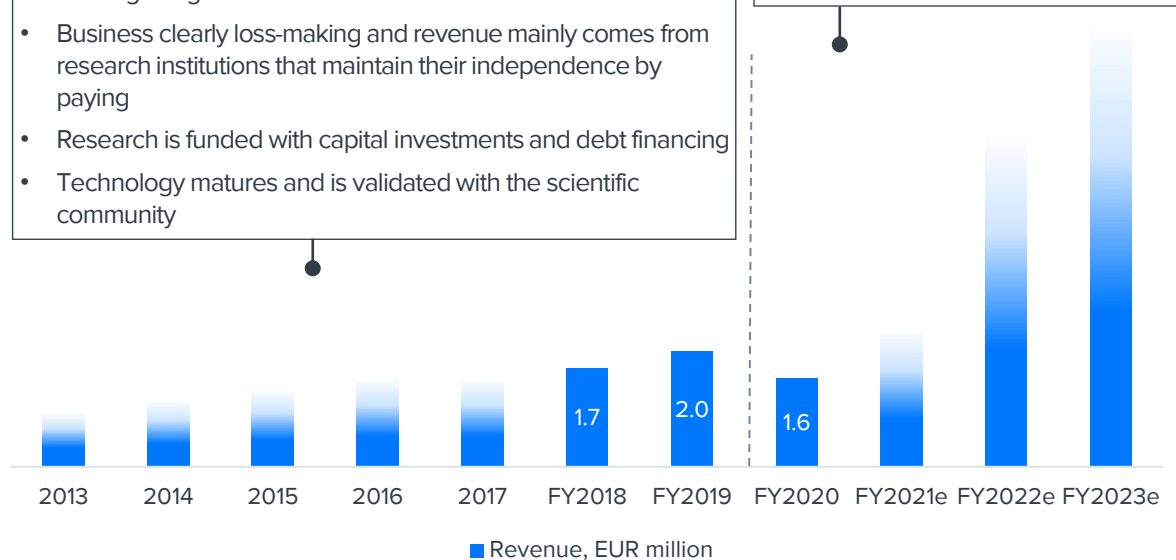
Revenue for accounting periods 2013 to 2017 and 2012 to 2023 are illustrative and do not depict actual revenue
NB! Nightingale's accounting period ends on June 30. - e.g., FY2018 covers the period July 1, 2017 to June 30, 2018.

Company description

Nightingale Health (NGH) is a technology company built around blood analysis

Nightingale Health started its current operations already in 2013 with the aim to develop a solution to change the current health care system towards a more preventive model. Nightingale took its current name from Florence Nightingale, who is considered the developer of modern health care. After several years of research and development, Nightingale moved to the commercialization of its technology in 2020 and to finance this the company is planning an IPO.

Nightingale's founders still manage the company and are involved in company operations. The founders have played a key role in developing the company's laboratory testing, test analyzing and risk predictions. Nightingale's technology is based on extensive measuring of blood counts and the collected data is combined with disease risks recognized from blood samples analyzed from Biobanks.

Nightingale tries to make preventive health care mainstream

Health care has for a long time focused more on treating sick people, while there have been only limited tools for extensive prevention of diseases. A concrete example is the prevalence of lifestyle diseases (e.g., Type 2 diabetes and cardiovascular diseases). For example, according to the national public health institute in the United States (CDC) around 90% of the annual health care costs in the US are generated from treating people with chronic and mental health related diseases.

Nightingale's key vision is to enable the focus of health care shifting more from treating illnesses to preventing diseases. The key idea behind the vision is that a person is never completely sick or healthy but

something in between. Nightingale's aim is to bring information to people on where they stand on this scale and, thus, make it easier for people to understand how health develops and improves.

Nightingale's technology and scientific base relies on openness and peer reviewed research

As a tool for preventive health care, Nightingale has developed tools for people to monitor the effects of lifestyle changes. In its platform, Nightingale combines a cost-effective method for measuring 250 blood counts ("biomarker"), a risk prediction of the person falling ill with over 1,000 different diseases, and comprehensible communication of this data in the app.

Blood analysis makes many people think of Theranos that developed its own carefully guarded blood analysis method that proved a hoax. Nightingale's approach has been the opposite. Nightingale's blood analysis platform has been installed to be used by elite universities, the company shares the results of its blood analysis with the scientific community for research, and the scientific community publishes its research in scientific peer reviewed publications.

Nightingale's technology base is a blood analysis machine and software it has developed with which the levels of biomarkers in the blood are measured. As the basis for predicting disease risks, Nightingale has over 1 million samples from Biobanks that is has analyzed with its own test methods. The scientific base is more than 300 published peer reviewed studies that discuss the link between the biomarkers measured with Nightingale's blood analysis and later risks of getting a disease.

Currently Nightingale (NGH) is positioned as a reducer of diseases
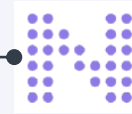
Healthy people
- Recognizing and monitoring disease risks with blood analysis
- Suggestions of actions that support disease prevention, the effects of which you can get feedback on with a new blood sample
- Asymptomatic people
- Lifestyle a key factor in maintaining health

Getting a disease: Often a common chronic disease like diabetes, heart attack, blood clot, depression or serious infection

Sick people
- A person seeks treatment when symptoms appear
- The symptoms are diagnosed, and the illness is treated and monitored with the help of a health care professional
- Current health care system largely focuses on treating sick people

Source: Nightingale Health

Summary of the technology: We believe Nightingale's (NGH) technology has in essence good preconditions for commercialization

	Blood analysis	Predicting disease risks	Activating people
Description of the technology	• Blood molecules are subjected to a magnetic field in NGH's machine where their resonance ("vibration") is measured (NMR spectroscopy) • NGH's automation processes large amounts of samples and NGH's software analyzes and turns the measuring results into commonly used blood counts	• NGH itself has analyzed over 1 million samples from Biobanks and other research institutes • NGH seeks links to the risk of a disease from the blood count contents ("biomarkers") using scientific research methods	• Blood counts are presented in an easily comprehensible form in a phone app (e.g., "Heart age"). • The app informs about considerable disease risks and suggests actions to improve the situation

Evidence of functionality	• The technology has IVD1 laboratory equipment's CE marking in the EU. Laboratory certification in Japan and regulatory approval in the US (510k) are expected during 2021
	• The reliability and competence of NGH's laboratory is accredited (SFS-EN ISO/IEC 17025:2017)
	• An external UK NEQAS program monitors the quality of the measuring
		• >300 peer reviewed studies, based on analyzing of >1 million samples
		• The company's blood analysis platform is used for medical research at universities (Oxford, Bristol)
		• The company agreed on analyzing 0.5 million blood samples of the UK Biobank
		• Research data open to the scientific community after a patenting period
		• The first (2) disease risk predictions are CE marked and the company plans to CE mark several disease risk prediction models in the near future
			• The My Nightingale app is already available to Finnish consumers
			• The pilots with users carried out in 2020 have been promising according to Nightingale
			   • In the pilot, around one-half of the highest risk and one-third of medium risk users decreased their risks considerably
			   • Most low-risk users maintained a low risk

Maturity of the technology[2]	**Very high**: extensive measuring coverage cost efficiently	**Quite high**: diseases covered extensively, accuracy will improve over time	**Quite low:** Development still in initial stages but already usable - clearly lower development risk than for biotechnology

○ Very low maturity ● Very mature

Technology 1/3 Blood analysis

NGH's laboratory technology relies on application of known blood analysis methods

Nightingale's blood testing is based on the resonance (vibration) of molecules in the magnetic field, which is called NMR[1] spectroscopy. The technology and method are known in themselves and, for example, MRI technology (magnetic resonance imaging) used for imaging of people work with the same principle according to Nightingale. In the measurement, electromagnetic radiation is directed at the blood sample at various frequencies.

For example, Queensland University has described the operating principle of NMR technology. Each atomic nucleus has their own typical frequency with which it receives radiation energy, which results in the core resonating. In line with their composition, molecules have their own vibration profile, whose strength can be measured and turned into the molecule's ("biomarker's") count Nightingale's software can be used, e.g., to automatically turn the measuring result to the count of certain molecules. In order to work, the system requires a strong magnetic field generated with a superconductor, the maintenance of which requires a cold temperature maintained with liquid helium and nitrogen.

According to Nightingale, the NMR method is very exact as it relies on the physics of the nature of the substance even though the method cannot currently measure everything from the blood. The NMR equipment used by Nightingale is generally available. Nightingale has, however, developed automation related to operating the equipment and software needed to analyze the results, which has made the overall testing method unique. Nightingale's analysis technology is protected by business secrets in terms of recognizing, measuring, and preparing the sample, and the processing of data.

According to Nightingale, its method can currently measure the count of 250 biomarkers. If the same amount or more biomarkers were measured with regular laboratory tests Nightingale says it would require more blood samples and the cost would be high. According to Nightingale, tit has received separate CE-approval for measurements of 37 of the total 250 biomarkers, which enables their use as a replacement to conventional laboratory tests in addition to using it to predict disease risks. The laboratory machine applied by Nightingale has an IVD[2] machine's CE marking (see page 8).

According to Nightingale, the benefit of its technology is the cost level of the tests and the repeatability of the results. According to the company, a different machine, in a different location and at a different time generates comparable results. This means that the Biobanks analyzed around the world generate comparable data and, on the other hand, a test made anywhere can be put through the risk prediction model and generate reliable results. In light of the information the company has provided (see competitor comparison page 14), we believe Nightingale's technology is competitive compared to the technologies of the key developers of preventive health care.

The costs of Nightingale's sample analysis consist mainly of work, liquid hydrogen and helium, wearing parts and electricity. According to Nightingale, the price of its NMR machine is typically under EUR 1 million and the capacity is some 90,000 tested blood samples per year. Divided over eight years, the cost of the machine is some 30 to 45% of the variable costs of analyzing the sample according to the company's estimate. The machine components are common but currently come from one supplier. Nightingale is also looking into the possibility of dual sourcing.

1 NMR = Nuclear Magnetic Resonance
2 IVD = In vitro diagnostics means research made on samples taken from patients and healthy people

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Compared with conventional blood analysis technologies NGH's technology has its clear benefits

	NMR	Mass spectrometers	Equipment based on clinical chemistry
Cost per test	Low[3]	High[3]	High[3]
Blood amount needed	Small <1 ml	Medium ~4 ml[4]	
Number of biomarkers per test	High (250)	High (~100 -to >1000)	Low (~5 to 20[3,4])
Very high precision	Yes	No	Yes
High consistency of results	Yes	No	Yes
Extremely extensive overall selection of test values	No[5]	Yes	

Source: Nightingale, Duodecim, Terveystalo, Synlab, US National Center for Biotechnology Information NCBI, Inderes' estimate

3 Nightingale does not publish exact cost information about its method but according to the company, NMR is the only cost efficient and mass volume test for, e.g., analyzing lipoproteins in blood. We have not been able to corroborate this statement reliably even though public test price lists (e.g., Synlab, Terveystalo, University of Boulder Colorado) and Nightingale's public test price list support the statement to some extent.

4 NGH / Duodecim Terveyskirjasto: amounts vary by test

The 5 NGH's test cannot replace all laboratory tests

Technology 2/3 Predicting disease risks

Data of Biobanks enables connecting blood values with the risk of falling ill

Nightingale has invested considerably in researching the link between the counts of biomarkers in blood samples and a later risk to get a disease. Nightingale has analyzed over 1 million blood samples on its platform, which has generated a vast database that enables research. The basis of Nightingale's current research is the vast Biobank samples (especially UK Biobank) and the sample givers' later health data, where you can see who of the sample givers got a disease later.

Based on data analyzed by Nightingale, over 300 peer reviewed studies have been published where connections between biomarker counts and later diseases have been found According to Nightingale, with the help of its research results, a risk prediction can be made for over 1,000 diseases on a blood sample analyzed with its technology, some 70 of these have are included in the next version of Nightingale's platform. According to the company, some 2/3 of these risk predictions are more precise than the current clinical standard. Part of the research concerning this statement has been published but part of it will only be published after the related patent applications are filed in Q1/21.

According to Nightingale, thanks to its Biobank cooperation agreements it can start research with Biobank data already before data is published, as soon as the samples have been analyzed. According to Nightingale, the data will become open soon after the analysis is completed when the scientific community can carry out own research with the data and expand understanding of predicting disease risks. For example, the universities of Oxford and Bristol use Nightingale's blood analysis technology. Nightingale has applied for or will apply for during Q1/21 a maximum patent protection of some 20 years for the risk analysis of several diseases. Nightingale has also applied for a patent for a method to assess disease risk from dried blood with NMR analysis.

Number of samples analyzed by Nightingale creates a moat and increases the network effects of the platform

A larger volume of data available for research improves the predictive power of data and the preconditions of the research in general. The more data is available the more reliable the results are. On the other hand, with a large volume of data more rarely occurring diseases can also be predicted. According to Nightingale, it has analyzed more samples than its competitors covering, e.g., UK Biobank, Finland's national Biobank, and sample collections from South-East Asia. In addition, Nightingale's platform has been used for over 350 studies in Europe, Asia and the US.

According to Nightingale, Biobanks have an incentive to analyze their samples as a part of more extensive comparable research data as it increases the available data volume gained from studying samples. On the other hand, as part of a large sample base the extent of the research grows when more Biobank samples are included. According to Nightingale, Biobanks' samples are usually not analyzed with similar methods several times, as most benefits are achieved with the first analysis. On the other hand, the volume of samples decreases with every testing and Biobanks want to utilize their samples for as many tests as possible (e.g., genetics). The volume of analyzed samples generates considerable network effects and increases the moat around the platform in our opinion.

We believe Nightingale has gained a good foothold as the analyzer of biomarkers in Biobanks' blood samples thanks to its competitive advantages (see page 14), and its research base is already vast. As a result, later on Nightingale's technology is the natural solution for the blood analysis of a person that wants a prediction of their disease risks.

Predicting risk for a heart attack – research example from UK Biobank:

1 The blood samples of 100,000 healthy people from 10 years ago are analyzed with NGH's technology

100,000 unique biomarker profiles

2 Over 10 years some of these 100,000 people have a heart attack

3 Similarities are found in the previous biomarker profiles of people who have had a heart attack that differ from those who have remained healthy

4.3x

A higher risk of heart disease if the biomarker profile has certain characteristics

Source: Nightingale

Technology 3/3 Activating people

Nightingale's app presents health data in a comprehensible form

Nightingale's platform delivers the result of the blood analysis to the user without interpretation from a health care professional. Interpreting regular laboratory results would be difficult for a layman and Nightingale turns the test results into comprehensible indicators. For example, heart health is described with a "Heart age" indicator.

In Nightingale's app, the user's health is described in six sections: joint health, heart health, mental health, gut health, diabetes resistance, immunity and lung health. The combination of these areas is also shown to the user as one health index. The My Nightingale app used in the 2020 platform pilot includes the risk prediction of two diseases, which also have a separate CE marking. The amount is still very low in this version considering that according to Nightingale their risk prediction model can predict the risk of over 1,000 diseases. According to Nightingale, it constantly expands the risk predictions shown to the consumer and it is already developing a new version of the app. The risk predictions to later be added to the app are, however, linked to the same biomarkers, which means that those who took the test earlier will also gain more information on previous samples over time.

The aim is to build the app into a platform built on health data

The starting point for Nightingale's app is the company's own blood sample and related research. Nightingale's vision is, however, to expand the app into a health data platform that would include other parties apart from the users.

In the vision, the platform would also be integrated with health data from wearables that would generate daily content to the app. In addition, the vision is that results and goals can be shared with friends and the community, with which the users are motivated to

improve their health. Nightingale also plans on bringing suggestions of practical actions to the platform with which the user can improve their health. To support these suggestions, Nightingale will build a channel to buying services that support prevention of diseases from companies, like health care service companies and exercise industry companies.

Most of the app is still only a vision but it is already available

Nightingale started piloting its platform (iOS & Android) during 2020 in Finland. The pilot has offered consumers a package of two blood tests at the cost of EUR 190, and the company experience is that customers would take the test on average every 5 months. In the pilot, consumers received the blood test results on the app. The app has also offered two disease risk indicators (type 2 diabetes and cardiovascular diseases) and suggestions of actions to take to reduce the risks. The current coverage of diseases already in our opinion offers some value to the users but there is a lot of potential for expansion.

The pilot period provided promising signals (see page 8) on the platform helping people improve their health, which indicated this is the right direction. There is still a ways to go between the current situation and the vision. Investors should realize that the platform that is being built can differ considerably from the current vision and the development will take time. Software development for the application requires clearly less capital and involves less product development risks than developing biotechnology. Nightingale has also recruited more software development talent to the company during 2020. There is, however, still clear uncertainty related to the commercial success of the app.

Health model of the My Nightingale app
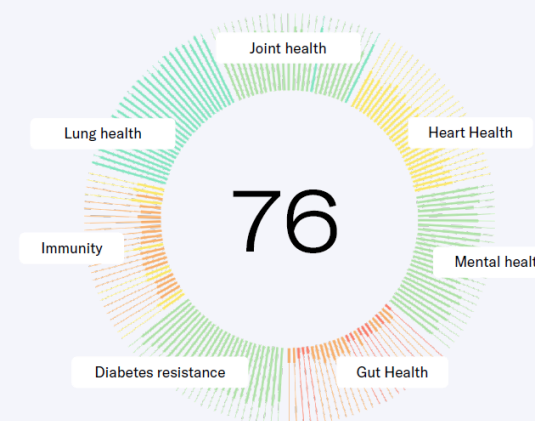
Key functionalities of the app

Functionality	Development situation
Presenting health data	✅ Basic values in accordance with the health model available, 17 individual blood values
Predicting disease risks	✅ Type 2 diabetes and cardiovascular disease risks included
Improvement suggestions	✅ Only some generic suggestions available based on blood values
Communal activities, goals, services supporting health	❌ Not available

✅ Extensively available to consumers ✅ Available to a limited extent ❌ Not available

Source: Nightingale, My Nightingale app (February 2021)

Target market 1/2

Nightingale's target market is expected to grow strongly in coming years supported by mega trends

Global preventive healthcare technologies and services market, USD billion

CAGR (annual growth)

+12%

386

139

2015   2024e
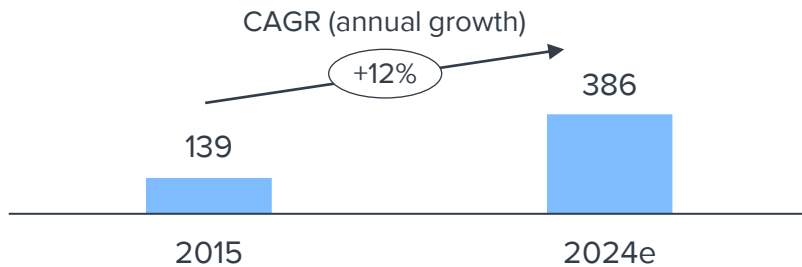
Source: Grand View Research

Trends behind target market growth

Trend	Effect on the market
Digitalization of health care	↗
Aging population	↗
Measuring one's own health	↗

Source: Nightingale, Inderes

Preventive health care could offer a relief to the cost pressure of health care

Chronic diseases are the most common cause of death and cause of health hazards globally

Heart diseases	Stroke	Cancer	Diabetes	Chronic respiratory diseases

Source: WHO, Nightingale

90%

of the USD 3.8 trillion annual health care costs are generated from **treating people with chronic and mental health related illnesses**

5x

More expensive to treat sick people. Five times higher health care costs per person in the US compared to the rest of the population **if the person has chronic illnesses**

Source: The Centers for Disease Control and Prevention, CDC

80%

of common chronic illnesses[1] **can be prevented with preventive actions that improve health**

Source: American Action Forum

1 Strokes, heart diseases and diabetes

Target market 2/2

Preventive health care is not a new concept, but the market is far from ready

Disease prevention is already done but there is still a lot of potential. A concrete example is the prevalence of lifestyle diseases (e.g., Type 2 diabetes and cardiovascular diseases). Disease prevention could have the potential to decrease the costs of health care considerably, which creates a market for cost-effective ways to reduce disease risks (see page 12).

The tools available for disease prevention vary from one country to another but we understand there are plenty of tools that can be classified as such. For example, vaccinations, health questionnaires, cancer screening, ante-natal clinics, monitoring of hereditary diseases (e.g., glaucoma) or regular health checks are preventive health care. Preventive tools, like the examples above, are, however, often point-like and only cover a limited number of diseases. According to Nightingale, there has not previously been an individual and cost-efficient way to cover hundreds or even thousands of diseases at one time.

Players in the health care field are constantly trying new things in the field of preventive health care. For example, in Finland Synlab offers various targeted laboratory test packages and Terveystalo uses monitoring solutions in treating people with chronic diseases (Etydi). Elsewhere, e.g., the UK's national health care service (NHS) is piloting Nightingale's competitors' Grail's solution for early detection of cancer.

However, according to Nightingale there is no solution on the markets that would extensively cover predicting the risk of chronic diseases. So, Nightingale is for its part creating a new market where the current industry players play a key role.

Differences in health care systems by country that are also reflected on Nightingale

Diseases cause considerable costs for society but naturally also humane and often financial costs for the sick individual. Globally health care also uses, e.g., public and private service providers, public and private funding, and direct and insurance-based grounds for payment. We believe prevention of diseases would be sensible in all systems both for society and the individual. The route to monetizing the benefit is not, in our opinion, as clear in all models.

Preventive health care does not reduce the number of sick people or the amount of care they need immediately but the effects are generated as the number of diseases decreases over time. In the short term, we believe that the overall costs may even rise as prevention of disease risks can generate extra costs. The costs may also be divided among different players depending on the model.

In insurance-based systems, the insurance company usually covers a considerable amount of disease treatment, so we believe there is a clear commercial interest to reduce these costs in the long term. Correspondingly the insurance payer, i.e., a private person or the employer in case of occupational health care, can benefit as lower insurance premiums. According to Nightingale, private health care companies will generate a lot of new customer stream from persons in sound health from preventive health care that would not normally seek these services when healthy.

On the other hand, we estimate that publicly funded systems usually have a more limited budget to arrange their activities. For example, in Finland the resources are quite scarce based on the length of the waiting lists and during the corona pandemic the treatment debt of primary health care has grown. Even though in the longer-term preventive health care could reduce the treatment costs of sick people considerably, budget limitations can slow down implementation in the short term. Costs rising in the short term could, however, in our opinion, be justified in a dynamic public health care system.

Health conscious and financially sound consumers can, on the other hand, consider preventive health care to be sensible use of money. The consumer will, however, only experience part of this benefit in from of improved health and quality of life and benefits are generated for society. Consumers are also often covered by some health insurance or public service and are not necessarily ready to spend considerable amounts of their own money on preventive care.

To our understanding, crucial from Nightingale's viewpoint is to find such players in the health care value chain that either gain benefits from preventive health care quickly or that are ready to accept increasing costs in the short term. According to our estimate, private health care companies and insurance-based systems would initially be the most promising options. We do also see potential in modern public sector systems (e.g., UK's NHS).

Source: Media sources, Inderes' estimate

Competitive landscape 1/2

Only a few players in the competitive landscape comprehensively covers the chain of disease risk determination and reduction

NOT COMPREHENSIVE LIST

Company type	Health analysis (Biotechnology)	Interpretation and popularization (Digital)	Extensive prediction of disease risks (Health)
Testers of heritage/ genetics	NANOPORE, BGI	23andMe, Prenetics, MyHeritage, dante labs, ancestryDNA, FamilyTreeDNA, myriad	
	Illumina[1]	GRAIL	
Testers of blood biomarkers		N	
		somalogic	
Other laboratory technology and service companies	CELLAVISION, immunovia, Healthy.io	SYNLAB, labcorp, Cue Health, Quest Diagnostics	

1 Illumina acquired Grail in September 2020

Source: Nightingale

Nightingale is different compared to its main competitors and from many viewpoints a more competitive option

	N	GRAIL	somalogic
What is analyzed	Blood biomarkers	Genetic ancestry in blood	Blood biomarkers
Risk recognition	>1,000[4] common diseases	~50 cancer	~50 common diseases
Test cost[2]	Low	High	High
Samples analyzed	>1 million	0.13[3] million	0.45 million
Funding collected	EUR ~40 million[5]	USD 2,000 million	USD 600 million
Peer reviewed publications	>300	~10	>300

2 No exact data available Nightingale estimates that competitors' costs are as much as a few dozen or hundred times higher than its costs. The competitors have, however, collected some 50 to 500x more funding than Nightingale in relation to the number of samples they analyze but no reliable conclusions can be drawn from this.
3 Analyzed volume in ongoing clinical tests
4 Nightingale has not yet filed patent applications for the entire amount and this sum has not yet been peer reviewed as a whole
5 Funding collected before the IPO and after July 1, 2017

Source: Nightingale, Inderes' estimate

Competitive landscape 2/2

Nightingale's competitive landscape combines biotechnology, software, and medical research

A combination of several disciplines lies behind Nightingale's product. At the same time, the company's competitiveness and moat are formed both directly of several different competences and of combining them into a whole. The competitive landscape can be viewed as a whole combining testing (biotechnology), interpretation and popularization of results (digital), and predicting disease risks (health).

There are several players on the market that complete one stage of the value chain (biotechnological measuring, digital interpretation of results, and predicting health risks) but only a few comprehensive players that utilize blood biomarkers. According to Nightingale, next to itself Grail and SomaLogic cover the entire chain. These players all use their own biotechnology in sample testing. Nightingale and SomaLogic measure blood biomarkers and try to combine them with disease risks. Nightingale's testing applies NMR spectroscopy while SomaLogic applies mass spectrometry. Grail, in turn, carries out extensive genomic analysis where it applies its own technology to recognize early signs of cancerous tumors.

Grail that focuses on cancers is, in our opinion, largely solving a different problem than Nightingale and SomaLogic that focus on lifestyle diseases. SomaLogic's testing is, according to Nightingale's estimates, clearly more expensive than its own. SomaLogic has also analyzed clearly fewer samples and its ability to predict diseases from biomarkers seems to be clearly behind Nightingale (predictions cover some 95% fewer diseases than Nightingale's predictions).

Own or applied background technology seems for the moment to be the precondition for managing the entire prevention chain. According to our estimate, this is caused by the high-cost level of the technology and limited coverage (see page 9). In laboratories that test blood, the price for an extensive base that covers hundreds of biomarkers is to our understanding expensive if conventional lab equipment is used for testing. On the other hand, without cost-efficient measuring of an extensive biomarker base it is hard to gain access to test Biobank samples. Even if the samples were tested with large investments and connections to disease risks were found, the high-cost level would also make the consumer test expensive. A person's health can, however, be assessed by testing with existing laboratory technology (e.g., Synlab) as the connection between several blood values and disease risks is known (e.g., cholesterol levels and cardiovascular disease). According to Nightingale, its risk prediction is more precise than the current universal clinical standard in about two-thirds of over 1,000 diseases. In addition, one Nightingale test can assess all risks at once while, according to Nightingale, when using conventional laboratory tests several tests would be required and the price for carrying out the tests would be multi fold compared to Nightingale. Companies carrying out genetic testing can assess hereditary disease risks (e.g., 23AndMe, Prenetics), but these tests are static and do not take into account how people's lifestyles affect these risks.

Nightingale's key competitive factors

- Scalable, cost-effective and comprehensive technology for analyzing biomarkers in blood samples

- Access to Biobanks' sample bases and an extensive database of analyzed samples

- Regulatory approvals enable the use of Nightingale's blood test also in primary health care

- Ability to predict extensive disease risks

- The business model supports current players and Nightingale is not positioned as their competitor

Nightingale's competitive disadvantages

- Functionality of the business model and benefits to various parties not proven and commercial credibility not yet deserved on the markets

- Competitors are clearly better financed (even after IPO), Nightingale has smaller resources to develop the company

Business model 1/2 Nightingale tries to build its business around a platform based on health data

1 Biobanks

Monetized transaction

Blood samples and health histories

Analyzed blood sample data
Predictions of disease risks
Richer comparison data

Blood samples from laboratory activities
Service supply
Payment from customers acquired

2 Consumers

Information about health
Tools to improve health
Monitoring health development

Blood samples
Subscription fees

Comparison of health indicators
Social support and pressure

3 Service providers

Customers needing health services

Higher benefit for the user of the machine

Daily measuring data related to health

4 Smart device manufacturers

Implementation of the business model only starting

◯ Not started   ● Fully functioning

	1	**2**	**3**	**4**
Description	Data related to Biobank samples are used to create disease risk predictions	The consumer gives a blood sample, gets information on their health and ways to improve their health	Service providers gain customers that otherwise would be challenging and expensive to find	Smart device manufacturers increase the benefit customers get from the devices
Implementation	Risk predictions for >1,000 diseases, ~70 on the next version of the app	Only pilots ongoing, no paid subscriptions, limited functionalities	Negotiations are ongoing, but no agreements yet	Only being planned

Business model 2/2

Business model is built on blood analysis technology and analyzing huge volumes of Biobank samples

Nightingale will commercialize its technology by building a platform around health data (see page 16). The basis for the value offered by the platform to the user is, in our view, especially predicting disease risks. Nightingale's ability to predict disease risks has been built on analyzing Biobank samples that has created the base for carrying out required research. Analyzing of Biobank samples has been enabled by Nightingale's extensive and cost-efficient blood analysis technology.

Service providers can support part of the intervention. For example, health care industry service companies, gym operators and nutrition coaches can offer users services that support their health. Nightingale itself does not diagnose or treat diseases so it does not compete with the service providers. On the other hand, service providers receive primarily customer flow that is in sound health through Nightingale that would necessarily not otherwise seek these services. The users themselves control whether they will buy the services or not and their data are not released to the service providers without consent linked to acquiring the service in question. In the long term, Nightingale also plans integrating third parties like smart device manufacturers to the platform. In the longer term it would also be possible to integrate, e.g., data related to genetics to the platform. This work is to some extent only a vision at this stage.

Monetization of the platform would happen through users and service providers

Nightingale is planning on monetization in two ways: through user subscriptions and by charging service providers for potential customers gained ("leads"). As far as we know, Biobanks are not charged for sample analyzing.

The core of a platform-based business model is to create strong network effects through sufficient participation, which is hard for competitors to crack. Thus, it is smart to carry out monetization so that it does not slowdown or weaken generation of network effects too much. For example Facebook: the platform is free for the users that create value, but the income comes from advertisers and app developers that benefit from the users. Nightingale is not planning to charge for sample analysis at least for the time being, which we believe supports platform growth. We believe the earnings model of Nightingale's platform is strategically sensible, as long as the free service offered to users is extensive enough to motivate use.

User monetization based on a freemium model - blood analysis free if possible

In Nightingale's plan the user gets their information included in the platform in connection with a routine laboratory visit for free as a rule. The app is planned to work for users with a freemium model, where some of the functionalities are offered for free and some through a paid subscription.

Nightingale has not given an estimate of the price of the subscription or the excepted share of paid users.

In the pilot stage, Finnish customers have, however, paid a one-time fee of EUR 109 for the use (incl. the app and two blood draws). We estimate that down the road Nightingale can charge for blood sample analysis or include it in the paid subscription but only once the platform has grown big enough.

Monetization towards service providers based on value from new customer flow

The cost of customer acquisition can be considerable for a health care service company (see page 27). We expect this is based on the fact that people who seem healthy do not seek out these service like those with symptoms do. Nightingale enables recognition of a heightened risk for disease among healthy people and enables steering them towards services that can help reduce their disease risk. At best, the company expects to enable clearly cheaper customer acquisition than normal for service providers. Thus, Nightingale would act as a marketing channel, where the customer's service needs are known precisely through the disease risks.

Nightingale plans to charge the service providers annually for showing service offers and for the number of clicks on the ads, as well as for services booked directly from the service. Nightingale has not given an estimate of the size of income flow anticipated from the customer flow. We estimate that advanced booking or payment integrations can prove a difficult approach, but we believe that Nightingale will be able to manage the income flow by shifting the focus more, for example, towards higher pricing for ad clicks if necessary.

Summary of the strategy

Target market and Nightingale's position

Size of target market[1] 2020e	**USD 245 billion**
Market growth 2015 to 2024e	**~12% CAGR**

Market trends

Digitalization of health care

Aging population

Measuring one's own health

Mature and competitive technology for predicting lifestyle diseases

Key strategic points

Strategy in brief

1. Focus on reducing lifestyle diseases

2. Platform-based, business model that complement current players

3. Integration with existing sample flows through private health care

Priorities for the strategy period

A. Building integration for partners included in the platform and complementing content

B. Starting platform business with references from Finland and/or Nordic countries

C. Launching the platform in Japan and the US using Nightingale's investors as cooperation partners

Gradually shifting from cash and debt financing to income financing

Profitability turnaround

in the medium term, measured by cash flow

+100 million

Users in the long term

EUR +500 million

Revenue in the long term

1 Global equipment and service market for preventive health care
Source: Nightingale, Grand View Research, Inderes

Strategy 1/2

Nightingale tries to grow with sample flow from current laboratory players

Nightingale's short and medium-term strategy is built around launching a platform-based business model (see page 16). In the next stage of commercialization, Nightingale tries to collect users for the platform. In Nightingale's business model, users join the platform through a blood sample and, in order to launch the model, Nightingale must have access to sufficient sample flows. The company tries to do this by integrating with current blood sample flows from laboratories, which in our opinion is critical in order to achieve the volume the company targets. Nightingale's strategy is to sign cooperation agreements at first mainly with companies that provide private health care services.

In the agreement, Nightingale would receive a small portion of the regular blood samples collected by the laboratory for testing, which would gain users for the company's platform without considerable marketing efforts when the business is starting out. Health care service companies would benefit from the model by gaining new customer flow from Nightingale's platform in form of persons in sound health with a partially heightened health risk. In the start, Nightingale prioritizes private players above public players as it expects private players will join the platform more quickly. Nightingale does not compete with private health care companies but acts as a partner with them, which improves the preconditions of a partnership.

Nightingale needs a very small amount of blood (<1 ml) for its analysis, which it says it can easily get from any regular blood sample (<25% of a 4ml sample). Users can also give a sample in a currently piloted consumer service in Helsinki in Finland. Nightingale has two laboratories in Finland and one in Japan, as well as two cooperation laboratories in the UK and one in the US. Nightingale is also developing an at-home solution where you can take the blood sample from your fingertip, which the company says it will pilot in Finland during 2021.

In February 2021, Nightingale announced an agreement with the Estonian Biobank where the 200,000 samples of the Biobank are sent to Nightingale's platform. According to Nightingale its first agreement negotiations with Finnish health care players are in the home stretch and the company aims to sign the first agreements in H1'21. According to Nightingale it has international discussions ongoing in Japan and the US. The company estimates that agreement negotiations will take 3 to 9 months in future, once the company has signed a few major reference agreements.

The blood samples are delivered and analyzed in Nightingale's laboratory after which the user receives the results in Nightingale's app. In the app, the user receives information on their state of health and risk of falling ill with several diseases. In addition, the user receives suggestions ("interventions") on how to improve their health and the user can share the data and goals to their friends if they wish to.

Strategic targets are highly ambitious

The long-term estimates of the strategy (see right side) are highly ambitious in our view and require a solid stream of success over the next few years. We open up our views on the realism of the objectives in the Estimates section.

Key strategic objectives

Short-term

✓ **ISO27001 information security certificate**

✓ **Agreement to analyze at least 75,000 samples**

Partner agreement with an established health care service provider

FDA approval

Launch of new app version

Medium term

1 **Cash flow turning positive**

2 **Agreement on 2 million samples with health care service companies**

3 **Agreement on 10 million samples with health care service companies**

Long-term

5 **Revenue over EUR 500 million**

4 **Over 100 million users**

Source: Nightingale (Status 03/08/2021)

Strategy 2/2

Nightingale will first collect evidence in Finland and then in coming years internationally

According to Nightingale its key retarder in gaining agreements abroad is to prove credibility, which it seeks through the financing from the IPO and by gaining reference agreements in Finland. After this, the company will gradually expand into various continents. Nightingale must seek the premises and equip a laboratory with machines, receive regulatory approval for the laboratory and localize the user app for each market. In addition, the company must sign agreements to receive sample flow and scale its analyzing capacity to correspond with the sample flow.

At the beginning of February 2021, Nightingale announced it had signed its first partner agreement in line with its commercialization strategy with Estonian Biobank that operates in connection with the University of Tartu, where it is agreed that the company's health information platform will be used to analyze 200,000 blood samples with the aim to introduce the health information platform to national use in Estonia. We also believe that Nightingale, supported by the balance sheet and credibility strengthened by the IPO has good preconditions to launch its business in Finland, the UK, Japan and the US. Nightingale has already started agreement negotiations in all of these countries.

In the UK, Nightingale has already carried out considerable cooperation with the national Biobank and Nightingale's competitor's Grail's solution that focuses on early recognition of cancers is already piloted in the UK. In Japan, the market opening is supported by Nightingale's investor Mitsui that according to Nightingale has a considerable holding in one of Asia's largest hospital chains. In the US,

Nightingale is supported by the company's investor PerkinElmer, with whom Nightingale has a cooperation laboratory in Pittsburgh.

Strategy involves a lot of uncertainty, which the investor carries as a risk

Even though Nightingale has the basis for the platform working in terms of predicting disease risks, the model is only being launched. The company still does not have confirmed agreements on continued sample deliveries or on offering health services on the platform, nor any customers paying a monthly fee. In addition, the key parameters of monetization of the business model are still based on assumptions, which creates considerable uncertainty around the commercial potential of the model. The model can also change if some part is not working as planned. It is possible that finding a successful commercial recipe will take several iterations from the company.

However, good initial signs of the model working have been seen during the pilot launched in 2020. In our opinion, critical for investors is to assess whether Nightingale generates value to its users that can be monetized. Considering the damages and costs of chronic diseases we feel it is reasonable to assume better health is valuable both to the consumer and society. On the other hand, the customer flow can be seen as valuable for the service provider. After this, the key question for the investor is Nightingale's technological competitiveness. According to our estimate (see page 14), the company's technological and scientific base is strong compared to its competitors. After these factors we feel it is important to assess the size of potential income flow in general and a realistic timeline for generating this income flow.

Steps towards geographical expansion

1 First commercial agreements and platform launch on domestic markets in Finland or a neighboring country

2 Expanding references by launching the platform in Europe

3 Launching business in the US and Japan together with investor-cooperation partners (PerkinElmer, Kirin, Mitsui)

4 *Other geographical expansion*

Past development, balance sheet and IPO 1/3

Nightingale's history is research focused

As typical for biotechnology and health technology companies, Nightingale started its operations with a longer research phase. Nightingale has invested considerably in research since it started in 2013 until today.

Nightingale's revenue in 2013 to 2020 mainly came from universities and health projects that paid for the use of Nightingale's technology. According to Nightingale, these payments are based on players' wish to remain independent as using the current technology for research free of charge could be interpreted as affecting the independence of the research. Universities that have paid include, e.g., the universities of Bristol and Oxford in the UK. Nightingale has also collected income flow from its consumer pilot in 2020 but according to the company these incomes have been low. The business model planned by Nightingale is in practice not yet visible in the historical figures.

Prior to the IPO, Nightingale has collected some EUR 40 million in financing since July 1, 2017. Nightingale's important investors are, e.g., PerkinElmer from the US that develops diagnostics equipment, the Finnish Cor Group that operates in the health care sector. In addition, the Japanese Kirin Holding that focuses on food and health care and the Japanese conglomerate Mitsui that operates, for example, in the health care industry, are considerable investors.

Nightingale's costs have focused especially on research personnel's salaries, laboratory equipment and rents. A considerable cost was generated from analyzing the samples of Biobanks to collect research data. Nightingale has also already made small investments into the consumer app that the company is planning to develop into a key platform for its business model.

Nightingale's costs have varied somewhat and will change in the commercialization phase, so we view the accounting periods 2018 to 2020 as a whole. Other operating expenses formed 49% of costs. Costs have consisted mainly of equipment acquisitions and costs, rents, software and IT costs, and administrative costs. Personnel costs have represented 37% of costs generated mainly from salaries and indirect salary costs. Nightingale carried out a reorganization in summer 2020 due to focus shifting from research to commercialization and cut its personnel from around 90 to some 70 people. The effects of this reorganization are not yet visible in historical figures.

The materials and services cost item represented 5% of costs and mainly consisted of raw material and service purchases. Financing costs have represented some 5% of costs comprising loans taken out to cover product development costs. Depreciation and impairment generated some 4% of costs. These mainly comprised product development and research cost depreciation in the balance sheet. During 2018 to 2020, depreciation has been in line with capitalization at around EUR 0.2 million per year.

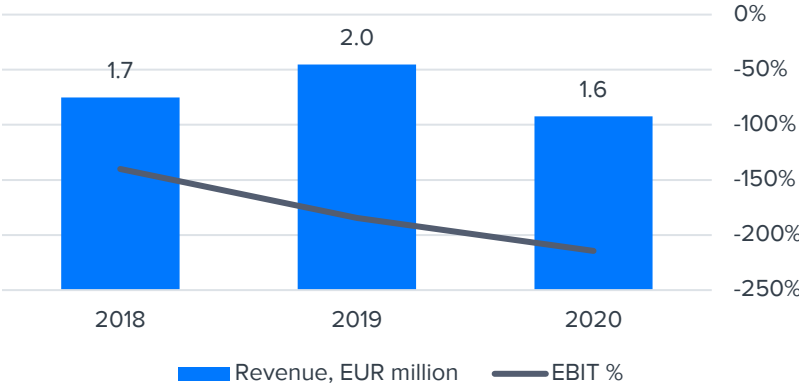## Prior to IPO, Nightingale's balance sheet position is challenging

Nightingale's balance sheet total on December 31, 2020 was EUR 32.1 million. The current size of Nightingale's balance sheet is very small in relation to the financing collected in the planned IPO (around 110 million).

A majority of Nightingale's balance sheet financing is debt. At the end of 2020, the company's equity was EUR 16.5 million mainly consisting of an equity-based loan, EUR 6.8 million. The granters of the loan were Nightingale's Japanese investors Kirin and Mitsui. Withdrawal of capital loans is tied to operating goals and are kept in escrow but converted to equity in connection with the planned IPO. Nightingale also has EUR 8.9 million in non-interest-bearing liabilities mainly connected to the same capital loan arrangement. Nightingale 's interest bearing liabilities stood at EUR 6.7 million related mainly to loans granted by financial institutions.

At the end of 2020, EUR 12.8 million of Nightingale's assets were intangible assets that have been generate from considerable capitalization of research costs. Nightingale also had EUR 10.9 million in receivables that, according to the company are mainly linked to the above-mentioned capital loan arrangement. At the end of 2020, the company's cash stood at EUR 6.1 million. Nightingale only has EUR 1.4 million in fixed assets consisting primarily of laboratory equipment. The company only had EUR 0.5 million in inventories.

Past development, balance sheet and IPO 2/3

Revenue and EBIT %

- 2018: 1.7
- 2019: 2.0
- 2020: 1.6

Legend: Revenue, EUR million — EBIT %

Y-axis (right): 0%, -50%, -100%, -150%, -200%, -250%

Average share of cost items of all costs in the accounting periods 2018 to 2020

- 37%
- 49%
- 4%
- 5%
- 5%

Legend:
- Materials and services
- Personnel costs
- Other operating expenses
- Depreciation and impairment
- Financial expenses

Balance sheet structure December 31,2020

Balance sheet total **32.1 EUR million**

Left column:
- Inventories EUR 0.5 million
- Intangible assets EUR 12.8 million
- Fixed assets EUR 1.9 million
- Receivables EUR 10.9 million
- Cash and cash equivalents EUR 6.1 million

Right column:
- Shareholders' equity EUR 16.5 million
- Non-interest bearing liabilities EUR 8.9 million
- Interest-bearing liabilities EUR 6.7 million

NB! Years depict the accounting periods that ended on June 30 of the year in question.
Source: Nightingale (audited)

Source: Nightingale (unaudited)

In the IPO, funds are collected for implementing the commercialization strategy

Nightingale aims to collect some EUR 110 million funds with the IPO to finance the commercialization phase. According to Nightingale its aim is to use the net assets collected from the IPO to support the company's growth strategy primarily as follows:

- ~35 % for fixed asset investments;
- ~30 % for sales and marketing;
- ~15 % for research and development;
- ~15 % for operating costs; and
- ~5 % to cover other unexpected costs that may occur in the company's business.

We believe the planned use of the funds from the IPO is primarily linked to user acquisition and increasing analyzing capacity. There is also a lot of work related to developing the functionality of the platform and, on the other hand, refining and expanding disease risk prediction.

In our view, commercialization of Nightingale's technology requires a strong capital structure, especially to fund user acquisition and increasing credibility.

User acquisition

In terms of launching Nightingale's platform, we feel it is crucial to get enough customers to the platform. The number of customers enables an attractive customer potential for service providers that creates a commercial basis for the service providers to join the platform. The company tries to carry out user acquisition by integrating into existing blood sample flows, where a small share of conventional blood

samples would be sent to Nightingale's laboratory for testing. We do not believe Nightingale should charge consumers for this as it can weaken the willingness of the sample provider or the laboratory to pay for the test. On the other hand, building a user base is in our opinion a precondition for Nightingale's business model working.

In our view, in the initial stage sample analyzing is an investment in user acquisition for Nightingale, which the company should be able to earn back during the life span of the customer, e.g., through subscription fees and income from purchased services. We believe, accumulation of income flow will be back-loaded and take place over time so the company must finance user acquisition in the short term from its balance sheet. In the long term, we believe the company could start charging for sample analyzing and, on the other hand, with a sufficient user base, the cash flow from operations should be able to finance growth.

Strengthening credibility

Compared to its peers, Nightingale has been very lightly capitalized, which we believe has weakened its credibility as an implementer of large-scale agreements. The IPO will bring considerable support for the company's balance sheet with which it can act as a credible partner in agreements covering higher sample volumes. We estimate that this credibility is key in the company's expansion plan being successful. On the other hand, as a listed company that constantly reports to the markets, Nightingale will, in our opinion, achieve more visibility and credibility in the eyes of potential contract partners.

Conventional lock-up applied to IPO

Lock-up is discussed in more detail in the prospectus, but we mention here the information that we consider most important.

The company management and members of the Board, as well as the company's existing shareholders, who own at least 2.5 per cent, commit under certain terms not to sell their shares within around one year from the IPO. For smaller shareholders, this period is around six months.

As a whole, the lock-ups apply to approximately 73.1 per cent of the Shares and 93.8 per cent of the votes after the offering, assuming that the upsize option and the over-allotment option are not exercised (approximately 66 per cent of the shares and 91.6 per cent of the votes assuming that the upsize option and the over-allotment option are exercised in full).

Funds as cornerstone investors

The cornerstone investors AP4 (Swedish pension fund), DNCA Invest – Beyond Global Leaders investment compartment, some funds under Sp-Fund Management Company Ltd and the FIM Fenno fund have given underwriting commitments for a total of EUR 39 million. The condition for the IPO is EUR 60 million in raised gross proceeds. We would have also liked to see health care and biotechnology industry companies or funds as cornerstone investors. On the other hand, PerkinElmer and Mitsui that operate in the industry are already investors in Nightingale.

Investment profile 1/2

This section presents statements and estimates concerning the future that are based on the analyst's views and considerable uncertainties are linked to their materialization.

Nightingale's investment profile

We feel Nightingale is a very early-stage growth company. The company's value relies purely on the expectation of considerable business potential that lies several years down the road and whose materialization involves considerable uncertainty. The profile makes the company high-risk as there is extremely low visibility into future profits and the business model is still practically untested. On the other hand, if the commercialization is successful, the value creation potential is considerable.

Nightingale's risk profile does, however, differ from a biotechnology company in the research stage as its technology has already largely been proven to work. In addition, the technology already has regulatory approvals, so it has been offered to consumers. In our view, the risks focus more the commercialization of the technology than on product development risks.

We believe Nightingale's value development is currently driven mainly by the news flow related to the progress of implementing the business model. Agreements on analyzing samples and bringing users to the platform play a key role in the beginning As commercialization progresses, the specifics generated by operating indicators will in our opinion play the key role in the company's value formation.

We feel the investment horizon needs to be very long as Nightingale's possible commercial success will be decided years from now. Progress towards

the strategic goals improves the possibilities to reach the ambitious objectives, and this will be monitored in coming years.

Key positive value drivers

Huge growing global market supported by mega trends offer a long road for growth. Mega trends like the aging population keep the market growing. The company technology solves a problem that is globally important for humanity.

Competitive and cost-efficient technology for predicting disease risks from blood samples enables Nightingale to grab the opportunity the market offers. Peer reviewed studies give the technology a scientific base.

Platform-based, scalable business model that complement current players makes Nightingale's value creation potential huge. Current market players benefit from Nightingale's platform and, on the other hand, Nightingale's planned business model is strongly digital and has high margins.

Strong position as analyzer of Biobanks' blood samples offers, according to our estimate, Nightingale a sustainable competitive advantage. Nightingale's large volume of tested samples from several Biobanks and sample collections has, in our opinion, made it the most attractive technology for analyzing biomarkers in samples.

Credible cooperation partners in the initial stages of internationalization help Nightingale start its business in Japan (Kirin, Mitsui) and the US (PerkinElmer).

Key negative value drivers and risks

Risks related to Nightingale are discussed in more detail in the company's prospectus and here we only discuss the risks we find to be key.

The business model can prove inoperable as the launch is only now starting up. The business model can lead to poor profitability or the assumptions concerning the monetization of the platform may prove wrong. Finding a new business model can take considerable amounts of time and capital in this type of situation.

The conservative health care industry can be slow in adopting technology. Even if commercialization is successful, it can take clearly more time for Nightingale to reach its objectives than it has anticipated. According to Nightingale, the main barrier in agreement negotiations has been the lack of references and getting these can take longer than expected due to the cautiousness of the industry players.

Potential data breach including personal health data could be a risk that threatened the existence of the company. Even though Nightingale has said it has invested heavily in data security, no system has watertight data security. In Finland, the data breach of, e.g., Psykoterapiakeskus Vastaamo lead, according to media information, to a situation where the company had to file for bankruptcy.

Falling behind the ambitious objectives would have a considerable effect on the valuation that relies of growth.

Competing technologies can take market shares even though Nightingale's position as the analyzer of Biobanks creates a moat.

Investment profile 2/2

1. Validated and mature technology for preventive health care

2. Target market that grows supported by mega trends

3. Scalable business model that benefits current players

4. Commercialization only in initial stages and related considerable uncertainty increases the risk level

5. Negative cash flow at the beginning of growth requires financing
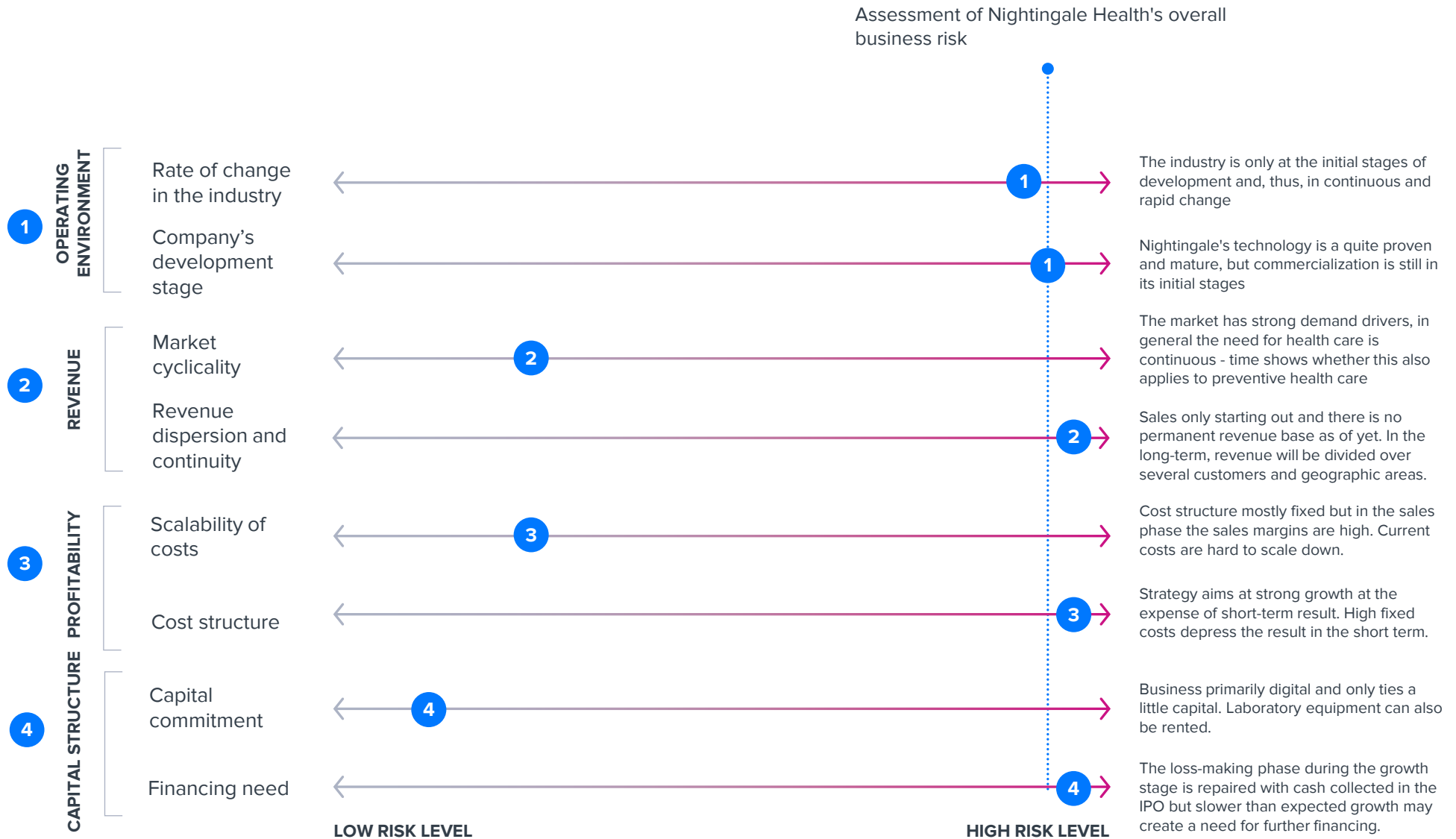
Potential

- Huge growing global market supported by mega trends

- Competitive and cost-efficient technology for predicting disease risks from blood samples

- Platform-based, scalable business model that complement current players

- Strong position as analyzer of Biobanks' blood samples

- Credible investors support internationalization as partners

Risks

- Business model proving inoperative

- Slower than expected progress in the implementation of new technology in a conservative industry

- Data breach including personal health data

- Not reaching ambitious targets and drop in the valuation level that relies on a successful commercialization

- Competing technologies

Source: Inderes

Risk profile of the business model

Assessment of Nightingale Health's overall business risk

OPERATING ENVIRONMENT (1)

- **Rate of change in the industry** — 1 — The industry is only at the initial stages of development and, thus, in continuous and rapid change
- **Company's development stage** — 1 — Nightingale's technology is a quite proven and mature, but commercialization is still in its initial stages

REVENUE (2)

- **Market cyclicality** — 2 — The market has strong demand drivers, in general the need for health care is continuous - time shows whether this also applies to preventive health care
- **Revenue dispersion and continuity** — 2 — Sales only starting out and there is no permanent revenue base as of yet. In the long-term, revenue will be divided over several customers and geographic areas.

PROFITABILITY (3)

- **Scalability of costs** — 3 — Cost structure mostly fixed but in the sales phase the sales margins are high. Current costs are hard to scale down.
- **Cost structure** — 3 — Strategy aims at strong growth at the expense of short-term result. High fixed costs depress the result in the short term.

CAPITAL STRUCTURE (4)

- **Capital commitment** — 4 — Business primarily digital and only ties a little capital. Laboratory equipment can also be rented.
- **Financing need** — 4 — The loss-making phase during the growth stage is repaired with cash collected in the IPO but slower than expected growth may create a need for further financing.

LOW RISK LEVEL   **HIGH RISK LEVEL**

Source: Inderes

Estimates 1/4

The estimates presented in this section are based on our views that have been formed independently also from Nightingale.

Accounting period 2021 still in very early stages of commercialization

We estimate the development for the accounting period (ends June 30,2021) to be in line with Nightingale's previous performance. It will take time for Nightingale to launch its business model and the company expects the sample flow to start forming only towards the end of the 2022 accounting period. We expect that the agreements announced in th second half of 2021 (Estonian Biobank) will become more clearly visible as business at the beginning of the 2022 accounting period at the earliest.

We estimate that 2021 revenue will come primarily from research institutions and amount to some EUR 2.0 million. We have taken the smaller organization as a result of Nightingale's reorganization in summer 2020 into account in our estimates. We have also taken into account EUR 8 million in non-recurring costs from the IPO. Otherwise, we expect costs in the 2021 accounting period will remain at the level seen in the 2020 accounting period.

We evaluate estimates for accounting periods 2022 to 2026 through a sensitivity analysis

Our long-term estimates for Nightingale's business include unusually many assumptions and uncertainties due to the company's development stage. Investors should be aware that the company's final business model can differ from the assumptions we present. In addition, finding a working business model has already required and can in future require several iterations so the timing is hard to predict. Our assumptions must be constantly reevaluated as the company progresses in launching its business model. Here, we discuss what lies behind our assumptions.

We evaluate Nightingale's long-term potential through four key parameters:

1) **Number of users**

2) **Revenue per user (ARPU)**

3) **Variable cost per user**

4) **Fixed costs**

Due to the business development stage, we use the accounting period 2026 as the reference point for our estimates. Next to the new business model we expect revenue from research institutions to decrease to insignificant levels by 2026.

Number of users

User acquisition for Nightingale's platform takes place by analyzing blood samples that it gets from the sample flows of its contract partners. We assume that sample analyzing starts within some 6 to 12 months of signing the contract, at the latest. We also assume that the annually analyzed sample volume corresponds with roughly the number of users in the long run.

Nightingale aims to sign one contract that covers 2 million annual samples and one that covers 10 million annual samples in the medium term, and to acquire over 100 million users in the long term. We find these objectives to be very ambitious and they require success in launching the business model. We feel the contract objectives (2 and 10 million samples) are possible each with an individual contract, smaller in Europe and larger in the US or Japan.

We feel Nightingale has the check marks worked out at least for the first leg towards its ambitious goals and the first step in launching the business model has also been taken. The agreement with Estonian Biobank (02/21) aims at connecting the people who have given 0.2 million samples with Nightingale's platform. The agreement is very small for the time being but a positive first step towards high volume user acquisition. A confirmed contract in Finland targeted for H1'21 could, according to our estimate, bring some 1 to 2 million samples. Cooperation with UK Biobank could enable integration of the Biobank and some 0.5 million already analyzed samples to the consumer platform (like in Estonia). We believe that a larger contract could be able in the UK or elsewhere in Europe supported by the credibility from the Biobank cooperation, which could raise the sample volume to 1 to 3 million samples. Based on these assumptions, Nightingale could reach a total of 2 to 5 million samples in Europe in 2026.

Through the above-mentioned evidence, Nightingale would, in our opinion, have preconditions to confirm contracts in Japan and the US. We believe this requires references in Europe. Nightingale's investors PerkinElmer (USA) and Kirin and Mitsui (Japan) enable, in our opinion, a credible and high-volume market opening on these markets. In our view, both markets have the potential to bring in 5 to 10 million samples by 2026 corresponding with Nightingale's larger objective of 10 million samples from a single contract. Our rough estimate for the potential of sample volumes and number of users is 7 to 25 million by 2026.

Revenue per user (ARPU)

Nightingale has no direct peer platforms, but we support our assumptions on figures of various companies with health-related platforms and technologies. The plan is that Nightingale's platform will connect income both from user subscriptions and by referring customers to service providers. We believe Nightingale could also start charging for sample analyzing in the long run. We do not, however, believe this will be relevant when looking into 2026 because it would slow down the growth in the number of users and the company is still in a growth stage at that point. Nightingale can also develop other monetizing mechanisms for the platform, which we do not assess at this time in point.

Nightingale's platform is planned to work on the Freemium principle, i.e., a smaller share of users is planned to generate a considerable share of subscription revenue. We believe the subscription can be paid by the user themselves or some other party like a health insurer or the employer of the user. Nightingale estimates the subscription price will be some EUR 50 to 200 per year. The annual subscription prices of health-related digital services vary between some EUR 40 to 200 depending on the app and subscription model (e.g., Headspace, MyFitnessPal, Noom, Shine). The example services focus on individual health areas (meditation, nutrition and exercise) and we believe they only cover one part of human health. We feel Nightingale's platform would cover human health more extensively than the examples and, thus, it could be priced at least at the level of these peers.

In light of current information, we estimate Nightingale's annual subscription price will be around EUR 40 to 200 in 2026. In our view, a subscription could, for example, contain a more extensive risk analysis of diseases than for the freemium user. In the longer term when the functionalities of the platform expand, the price of the subscription could also be higher.

The share of paying users of all users varies in our opinion depending on the service. Others consider a 5% share as the basic level and 10% and excellent level ("5 percent rule", Chris Anderson), while others say the common level is 2 to 5% (Harvard Business Review, V. Kumar). Nightingale itself estimates that it can get 5 to 15% of the users to become subscribers. We believe the ratio depends fundamentally on service design and separation of free and paid functionalities. We estimate that 5 to 10% of the users of Nightingale's platform will be subscribers in 2026. A higher share would, in our opinion, be supported by any support the user could get to acquire the service. If, for example, health insurers would see the platform as reducing the policy holder's treatment costs clearly, they could include the service or part of it in their insurance package.

Nightingale also plans to charge service providers for recognizing disease risks, referred customers and a share of the price of the services they buy. We assess these incomes as a whole. According to the marketing technology company DemandJump, the median cost of customer acquisition for a health care and medical industry company is around EUR 60 to 65 per customer. This estimate gives, in our opinion, a relatively good reference point for costs in the Western countries. We estimate Nightingale's reference revenue per referred customer to be some EUR 20 to 60 in 2026. For example, according to BigCommerce that develops an e-commerce platform, some 1 to 2% of web shop visits result in a purchase. Some users of Nightingale's platform may, however, make several service purchases per year. According to our rough estimate, there could be some 5 to 50 referrals per one thousand users on an annual level.

Considering all users, Nightingale's 2026 revenue per user (ARPU) could, based on the arguments above, be some EUR 5 to 15.

Variable cost per user

According to Nightingale, the price of its NMR machine is typically under EUR 1 million and the capacity is some 90,000 tested blood samples per year. Divided over eight years, the cost of the machine is some 30 to 45% of the variable costs of analyzing the sample according to the company's estimate. This estimate would correspond with a cost of some EUR 3 to 5 per test.

Nightingale's public list price per analyzed sample is EUR 25 with a large 100,000 sample volume. In 2018, Nightingale also said analyzing of the UK Biobank's sample of 0.5 million tests corresponds with an investment of over EUR 10 million, which would mean a cost of over EUR 20 per sample. As far as we understand, it has been in Nightingale's interest to offer analysis at a rather low margin as it has benefited directly from the evidence it has collected for its technology and in strengthening its position among competing blood analysis technologies. We expect that the company's processes will develop as the testing volume grows and it will be able to lower the cost over time and as volumes grow. As a whole, we estimate that Nightingale's average cost per sample will decrease to around EUR 3 to 7 in 2026.

Estimates 3/4

Our 2026 estimate specified through operative parameters...

Revenue and operating profit in 2026

Forming the estimate			Estimated range of the parameter
1	~12	Million users in 2026	**7 to 25**
	✖		
2	~9	Annual revenue per user, EUR	**5 to 15**
	▬		
	~5	Annual cost per user, EUR	**3 to 7**
	▬		
	~16	Annual fixed costs, EUR million	
	═		
1	~108	Revenue in 2026, EUR million	
2	~31	Operating profit in 2026, EUR million	

...would correspond only with a fraction of the market potential of savings in health care costs

Estimate of savings generated with disease prevention and the share Nightingale needs of it

Forming the estimate

~7,300	Global costs of health care, EUR billion[1]	
✖		
90%	Share of costs from chronic diseases (generalized from the US)	
✖		
5/6	Share of extra costs among the chronically ill compared to the population in sound health	
✖		
80%	Chronic diseases avoidable with lifestyle changes	
═		
~4,400	**Savings potential of EUR billion**	

Our revenue estimate for 2026 would correspond with some

1/40,000 share

of the savings potential generated by the technology globally

Estimates 4/4

Fixed costs

In fixed costs we include all costs that are not directly connected with users or analyzing their samples, that is sales, administration, and research personnel costs. Nightingale's fixed costs per person were around EUR 127,000 in the accounting periods 2018 to 2019 when taking into account personnel costs, other operating costs and capitalized R&D costs. On January 1, 2021 Nightingale had some 70 employees so we estimate that the fixed costs at the set out is around EUR 9 million per year. In addition, we take the non-recurring EUR 8 million IPO costs into account for the 2021 accounting period. We assume Nightingale will capitalize some EUR 5 to 8 million of its fixed costs to the balance sheet per year over the next few years.

In our view, Nightingale should invest in the development of the platform when revenue grows so that it can increase the value the platform generates for the user and improve the monetization of the platform. On the other hand, for example, recruiting of sellers would improve the preconditions of growth. We estimate that the number of personnel will grow by some 10% annually and fixed costs will grow to some EUR 16 million in 2026.

Our estimates more cautious than Nightingale's objectives

In our estimates, Nightingale will reach its medium-term objectives in 2024 in terms of the contract base (>12 million samples) and in 2025 in terms of profitability (cash flow turns positive). Development in line with our estimates would require excellent progress from Nightingale over the next few years and announcement of at least one partner contract (1 to 10 million samples) per accounting period from the accounting period 2021 onwards.

Our estimates are heavily forward looking and contain a lot of confidence in Nightingale's ability to implement its commercialization strategy. Thus, the model is also very sensitive to changes if the company's development does not meet our expectations along the way. Our estimates contain considerable assumptions on the parameters of the business model, which means that if our estimate on the number of users is reached it may result in completely different revenue and profitability than we expect. At the same time, our estimates only scratch the surface of Nightingale's long-term targets (revenue EUR >500 million).

Key estimate parameters for accounting periods 2021 to 2026

	2021e	2022e	2023e	2024e	2025e	2026e
Contract base, thousand samples	200	2000	4000	7000	12000	20000
Number of users, thousand persons	50	200	2000	4000	7000	12000
Revenue per user	0.5 EUR	2.0 EUR	4.0 EUR	6.0 EUR	8.0 EUR	9.0 EUR
Cost per user	EUR 7	EUR 7	EUR 6.5	EUR 6	EUR 5.5	EUR 5
Fixed costs per year	EUR 9.0 million EUR 8 million (IPO)	EUR 10.1 million	EUR 11.3 million	EUR 12.7 million	EUR 14.2 million	EUR 15.9 million

Source: Inderes

Estimates for accounting periods 2021 to 2026, EUR million

Revenue: 2020: 2, 2021e: 2, 2022e: 3, 2023e: 9, 2024e: 24, 2025e: 56, 2026e: 108

EBIT %: 2021e: -215%, 2021e: -517%, 2022e: -285%, 2023e: -145%, 2024e: -43%, 2025e: 10%, 2026e: 25%

Revenue ▬ EBIT %
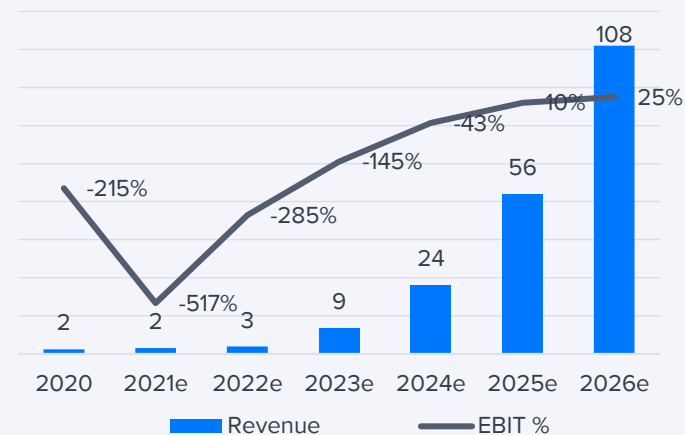
Source: Inderes

Valuation 1/4

Nightingale's value leans on the value of technology and future business potential

Nightingale is only in its initial stages of the commercialization of its technology. According to our view, the company's value is based on the future commercialization potential of the technology and the strategic value. This value can, in our estimate, become realized either through commercialization or by ending up as an acquisition target. We do, however, consider Nightingale's own commercialization more likely considering the management's view and strong will to maintain the decision power within the company. The founders and key personnel also have considerable voting rights in the company with which they can drive their views. The commitment of the company founders is typically positive for an investor but the voting rights can limit the influence of other shareholders. Nightingale's valuation involves exceptional uncertainty due to the early stage of commercialization of the business, so we approach the valuation from several viewpoints.

M&A transactions in the sector help roughly estimates the range of Nightingale's fair value

We have not found any sensible listed peers for Nightingale. There have, however, been a few relevant transactions in the competitive landscape. 23AndMe that offers genomic analysis to consumers was sold in February 2021 to Virgin Group at a valuation of around

USD 3.5 billion (some EUR 2.9 billion). In addition, Grail that offers early cancer detection was sold to Illumina that develops DNA sequencing in September 2000 for some USD 8 billion (some EUR 6.6 billion).

Measured by revenue, Grail's and 23AndMe's business (EUR 60 to 390 million) is clearly bigger than Nightingale's (EUR 2 million). 23AndMe has offered services to consumers already since 2017. As far as we know, Grail is further away from commercialization of its technology, but it is part of an extensive clinical research (covering 135,000 people). In addition, in terms of collected funding the companies have collected substantially more funding (EUR 720 to 1,500 million) than Nightingale (EUR 40 million[1]). The valuation of peers has been around fourfold relative to collected funding, which would correspond with a valuation of some EUR 160 million for Nightingale.

Thanks to its smaller size class and financing, Nightingale has been able to invest clearly less in its technology than its competitors. In our view, this in principle lowers the value of the company's technology to buyers as low financing indicates that technology at least in principle can be developed with the sum in question. According to our estimate, Nightingale should thus be valued at a clearly lower level than its competitors. Next to the technology, Nightingale has an advantage in the form of analyzed Biobank samples which supports the company's valuation. Based on M&A transactions we estimate the

range of the fair value to be around EUR 200 to 800 million.

DCF value sensitive to applied return requirement

Our DCF model is based on the assumption of Nightingale's business development presented in the Estimates section. In our DCF model we assume that Nightingale's revenue will in the long term grow close to the company's EUR 500 million target and operating profit will rise to over 40% supported by extremely high-margn revenue. The terminal growth used in our model is 3%.

There is a lot of uncertainty related to cash flow so we feel the earnings expectation must also be considerable. We use a return requirement (WACC) of around 17% in our DCF model based on 20% cost of equity, 20% debt ratio and 6% cost of debt financing. We do, however, feel there is plenty of room for the return requirement to decrease as Nightingale's progresses in the commercialization of its technology. Correspondingly, a drop in the return requirement would have a strong positive leverage on the company's value. The debt-free value (EV) of our DCF model for Nightingale is EUR 334 million and equity value is EUR 329 million prior to the IPO. As the DCF model involves considerable assumptions we believe it is justified to assess the value of equity based on DCF to be around EUR 200 to 500 million rather than a precise valuation.

M&A transactions in the sector

Target (buyer)	Date	Valuation	Total funding collected	Revenue
23AndMe	02/2021	EUR ~2.9 billion	EUR ~720 million	EUR ~390 million (2019)
Grail (Illumina)	09/2020	EUR ~6.6 billion	EUR >1,500 million	EUR ~60 million (estimate)

1 Nightingale has collected EUR 40 million since July 1, 2017   Source: Forbes, Grail, 23AndMe, Crunchbase, Media sources

Valuation 2/4

Scenarios emphasize the uncertainty of valuation

The strengths of Nightingale's technology and platform compared to its competitors give, according to our view, a good base to succeed on the preventive health care market but even if it is successful there is a lot of uncertainty tied to how quickly the company's commercialization progresses. Because our estimates are thus far only indicative assumptions of future development, we have created scenarios to support our valuation. We feel scenarios work well as support for Nightingale's valuation as they help interpret possible development paths for the company. Our basic scenario relies on the level assumed in our estimates (see pages 27 to 30) which in our opinion corresponds with an ambitious but justified and possible growth path for Nightingale.

Negative scenario

In the negative scenario, the commercialization of Nightingale's technology would progress slowly, and the growth rate would be clearly slower than expected. In this scenario, Nightingale would largely spend the capital it has collected when trying to commercialize the technology. If necessary, we believe the technology could find a buyer in this scenario, but investors' returns would still be clearly in red. Investors should also be aware that it would be possible to lose all invested capital even though we do not depict that in this scenario.

Optimistic scenario

Our optimistic scenario relies on Nightingale's long-term revenue objective materializing. In this scenario, revenue of over EUR 500 million would be reached already in 2027 and the revenue in 2026 would be EUR 301 million. In our opinion this would require successful openings on several large markets (the US, Japan, Europe…) with which the user numbers would grow to the upper limit of our estimated range. In addition, revenue per user would be at the upper end of our range. Growth would also be visible as high profitability Thanks to strong scalable growth, valuation multiples would also rise to high levels in this scenario.

Scenario analysis of valuation with EUR 300 million market value prior to IPO

Accounting period 2026 (-June 30, 2026)	Pessimistic	Current estimates	Optimistic
Variable revenue growth %	35%	55%	55%
Variable operating profit %	-6%	25%	43%
Variable revenue EUR million	35	108	301
X multiplier revenue	4	10	15
X multiplier operating profit		25	30
= EV (EV/revenue)	140	1080	4518
= EV (EV/EBIT)		673	3885
Average (EV)	140	877	4202
+Net cash	-94	-54	40
=Market value	46	823	4242
Return	-85%	176%	1321%
Annual return (~5 years)	-30%	21%	65%

Source: Inderes

Valuation 3/4

Sensitivity analysis

We illustrate the uncertainty of estimate-linked valuation with a sensitivity analysis. The key variable components of the analysis that assesses Nightingale's current fair value are the number of users and revenue per user in 2026. In our sensitivity analysis we assume a 25x EV/EBIT ratio, neutral net cash, EUR 5 cost per user and EUR 16 million fixed costs in line with our basic scenario. We also assume net debt to amount to EUR 50 million. We use a 17% cost of capital in our analysis. As variables we have chosen the main parameters that affect the value: number of users and revenue per user.

The areas that roughly correspond with our scenarios are highlighted in the table. The table shows in our opinion clearly how small changes in the parameters affect the estimate on Nightingale's fair value considerably.

Options can have a clear weakening effect on the value per share

Prior to the IPO, Nightingale has some 44.2 million shares based on the prospectus. According to the prospectus, initially a maximum of 16.3 million share will be issued in connection with the IPO. According to the prospectus, Nightingale's management and Board members hold options that correspond with a total of some 8.2 million shares, which initially would in total correspond with some 14% growth in the number of shares compared to the number of shares after the IPO. Based on the information in the prospectus, the options are mainly tied to the company's market value rising considerably. Thus, the increase in the number of shares caused by the options is generated in a very favorable situation for the investor and does not, in our opinion, dilute the company's long-term potential. On the other hand, the company management has strong incentive to increase company value, which is also in the interest of shareholders. In the optimistic scenario, the options would, however, weaken the return expectation we have estimated. We have not considered the possible effect of options in our valuation.

Sensitivity analysis of valuation
Estimated market value before IPO, EUR million

~Optimistic scenario   ~Current estimates

Million users in 2026

Revenue per user, EUR	1	3	6	8	10	12	15	30	50	100
6	0	0	0	0	0	0	0	100	300	900
8	0	0	0	100	100	200	300	800	1,400	3,100
10	0	0	100	200	300	500	600	1,400	2,500	5,200
12	0	0	300	400	600	700	900	2,100	3,600	7,400
14	0	100	400	600	800	1,000	1,300	2,700	4,700	9,600
16	0	200	500	800	1,000	1,200	1,600	3400	5,800	11,700
18	0	200	700	900	1,200	1,500	1,900	4,000	6,900	13,900
20	0	300	800	1,100	1,400	1,800	2,200	4,700	7,900	16,100
25	0	500	1,100	1,500	2,000	2,400	3,100	6,300	10,700	21,500

Source: Inderes

Valuation 4/4

Summary of valuation

The margins of error are considerable in our valuation due to the weak predictability of Nightingale's business. In terms of Nightingale's fair value, it is possible to reach very differing justified valuations.

The investor's own assessment is especially emphasized in assessing Nightingale's valuation, and this assessment should be based on Nightingale's prospectus. Our analysis offers an additional viewpoint into the company. If the investor believes the commercialization of the company's technology is successful in the next 10 years, we believe the share is likely to offer good annual earnings expectation. The faster this happens, the better the earnings expectation. So far, estimating the time frame is, however, extremely hard and, therefore, we recommend investors to be cautious about how soon they expect results from the company. Building a successful business model will require a lot of patience and discipline from Nightingale's management. If growth is sought in the shorter term with an immature commercial concept it could risk the potential of the technology in the long term as a solver of key global health care problems and thus also in creating shareholder value. Thus, the owners must also be patient during the journey.

Based on M&A transactions in the sector, our scenarios, the sensitivity analysis and our DCF model we believe Nightingale's fair value range is between some EUR 200 and 500 million. In Nightingale's IPO, the corresponding market value is around EUR 300 million. In this investment research we do not determine a target price for Nightingale.

Inderes' estimate on Nightingale's pre-money equity value, EUR billion
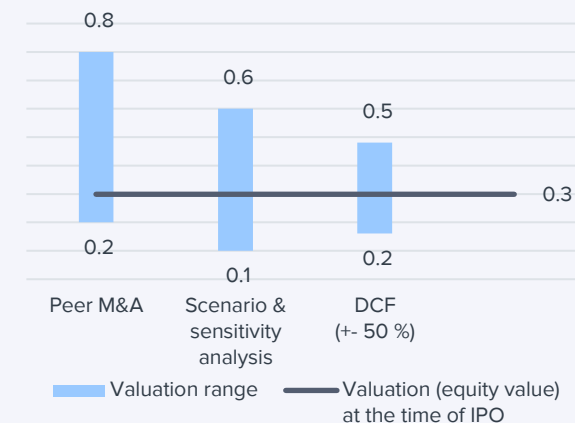
Source: Inderes

Income statement

Income statement	2018	2019	2020	H1'21	H2'21e	2021e	2022e	2023e	2024e
Revenue	1.7	2.0	1.6	1.0	1.0	2.0	2.4	9.0	24.0
EBITDA	-2.2	-3.6	-3.2	-2.2	-7.9	-10.1	-3.6	-9.3	-5.0
Depreciation	-0.2	-0.2	-0.2	-0.2	-0.2	-0.4	-3.4	-3.8	-4.2
EBIT (excl. NRI)	-2.5	-3.8	-3.4	-2.3	-0.1	-2.5	-6.9	-13.1	-9.3
EBIT	-2.5	-3.8	-3.4	-2.3	-8.1	-10.5	-6.9	-13.1	-9.3
Net financial items	-0.2	-0.2	-0.4	-0.2	-0.2	-0.4	-0.4	-2.7	-3.8
PTP	-2.6	-4.0	-3.8	-2.5	-8.3	-10.9	-7.3	-15.7	-13.0
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net earnings	-2.6	-4.0	-3.8	-2.5	-8.3	-10.9	-7.3	-15.7	-13.0

Key figures	2018	2019	2020	H1'21	H2'21e	2021e	2022e	2023e	2024e
Revenue growth-%		17.1 %	-22.9 %		-35.9 %	28.3 %	18.5 %	275.0 %	166.7 %
Adjusted EBIT growth-%		54.4 %	-10.5 %		-96.4 %	-27.3 %	180.6 %	89.1 %	-29.0 %
EBITDA-%	-127.0 %	-173.5 %	-200.1 %	-212.3 %	-784.0 %	-498.0 %	-148.0 %	-103.1 %	-21.0 %
Adjusted EBIT-%	-140.1 %	-184.7 %	-214.5 %	-230.9 %	-12.1 %	-121.5 %	-287.7 %	-145.1 %	-38.6 %
Net earnings-%	-150.8 %	-196.3 %	-238.9 %	-250.6 %	-822.3 %	-536.3 %	-304.4 %	-175.0 %	-54.3 %

Source: Inderes

Balance sheet

Assets	2019	2020	2021e	2022e	2023e
Non-current assets	**5.9**	**13.5**	**16.8**	**18.9**	**21.2**
Goodwill	0.0	0.0	0.0	0.0	0.0
Intangible assets	5.9	12.1	16.7	18.9	21.1
Tangible assets	0.0	1.4	0.0	0.0	0.1
Associated companies	0.0	0.0	0.0	0.0	0.0
Other investments	0.0	0.0	0.0	0.0	0.0
Other non-current assets	0.0	0.0	0.0	0.0	0.0
Deferred tax assets	0.0	0.0	0.0	0.0	0.0
Current assets	**8.5**	**10.3**	**1.2**	**1.4**	**2.7**
Inventories	0.3	0.2	0.0	0.0	0.0
Other current assets	0.0	0.0	0.0	0.0	0.0
Receivables	1.8	9.2	0.2	0.2	0.9
Cash and equivalents	6.5	0.9	1.0	1.2	1.8
Balance sheet total	**14.4**	**23.8**	**18.0**	**20.4**	**23.9**

Source: Inderes

Liabilities & equity	2019	2020	2021e	2022e	2023e
Equity	**5.7**	**8.7**	**-0.2**	**-7.5**	**-22.8**
Share capital	0.0	0.0	0.0	0.0	0.0
Retained earnings	-7.1	-10.9	-28.6	-35.9	-51.1
Hybrid bonds	0.0	6.8	6.8	6.8	6.8
Revaluation reserve	0.0	0.0	0.0	0.0	0.0
Other equity	12.8	12.8	21.6	21.6	21.6
Minorities	0.0	0.0	0.0	0.0	0.0
Non-current liabilities	**5.5**	**4.5**	**16.4**	**24.1**	**38.6**
Deferred tax liabilities	0.0	0.0	0.0	0.0	0.0
Provisions	0.0	0.0	0.0	0.0	0.0
Long term debt	5.5	4.5	16.4	24.1	38.6
Convertibles	0.0	0.0	0.0	0.0	0.0
Other long term liabilities	0.0	0.0	0.0	0.0	0.0
Current liabilities	**3.2**	**10.6**	**1.8**	**3.8**	**8.1**
Short term debt	1.7	1.4	1.6	3.5	7.2
Payables	1.4	9.2	0.2	0.2	0.9
Other current liabilities	0.0	0.0	0.0	0.0	0.0
Balance sheet total	**14.4**	**23.8**	**18.0**	**20.4**	**23.9**

The balance sheet does not consider the capital raised in the IPO, which the company needs to carry out its growth strategy

DCF calculation

DCF model	2020	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	TERM
EBIT (operating profit)	**-3.4**	**-10.5**	**-6.9**	**-13.1**	**-9.3**	**5.6**	**26.9**	**56.9**	**89.1**	**122**	**164**	**201**	**208**	
+ Depreciation	0.2	0.4	3.4	3.8	4.2	4.7	5.1	5.6	6.1	6.5	6.8	7.0	7.2	
- Paid taxes	0.0	0.0	0.0	0.0	0.0	-0.1	-3.5	-10.9	-17.6	-24.3	-32.6	-40.2	-41.4	
- Tax, financial expenses	0.0	0.0	0.0	0.0	0.0	-0.2	-0.5	-0.4	-0.2	-0.1	-0.1	-0.1	-0.1	
+ Tax, financial income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
- Change in working capital	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Operating cash flow	**-2.8**	**-9.9**	**-3.6**	**-9.3**	**-5.0**	**10.0**	**28.0**	**51.1**	**77.3**	**104**	**138**	**168**	**173**	
+ Change in other long-term liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
- Gross CAPEX	-7.8	-3.6	-5.5	-6.1	-6.7	-7.3	-8.0	-8.6	-8.7	-8.7	-8.8	-8.6	-9.6	
Free operating cash flow	**-10.6**	**-13.6**	**-9.1**	**-15.3**	**-11.7**	**2.7**	**20.0**	**42.6**	**68.7**	**95.3**	**129**	**160**	**164**	
+/- Other	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
FCFF	-10.6	-11.2	-9.1	-15.3	-11.7	2.7	20.0	42.6	68.7	95.3	129	160	164	1210
Discounted FCFF		**-10.6**	**-7.4**	**-10.7**	**-7.0**	**1.4**	**8.7**	**15.8**	**21.9**	**26.0**	**30.1**	**31.8**	**27.9**	**206**
Sum of FCFF present value		334	345	352	363	370	368	360	344	322	296	266	234	206
Enterprise value DCF		**334**												
- Interesting bearing debt		-5.8												
+ Cash and cash equivalents		0.9												
-Minorities		0.0												
-Dividend/capital return		0.0												
Equity value DCF		**329**												

Wacc	
Tax-% (WACC)	20.0 %
Target debt ratio (D/(D+E)	20.0 %
Cost of debt	6.0 %
Equity Beta	3.6
Market risk premium	4.75%
Liquidity premium	1.00%
Risk free interest rate	2.0 %
Cost of equity	**20.0 %**
Weighted average cost of capital (WACC)	**16.9 %**

Source: Inderes

Cash flow distribution

2021e-2025e	-10%
2026e-2032e	49%
TERM	62%

■ 2021e-2025e ■ 2026e-2032e ■ TERM
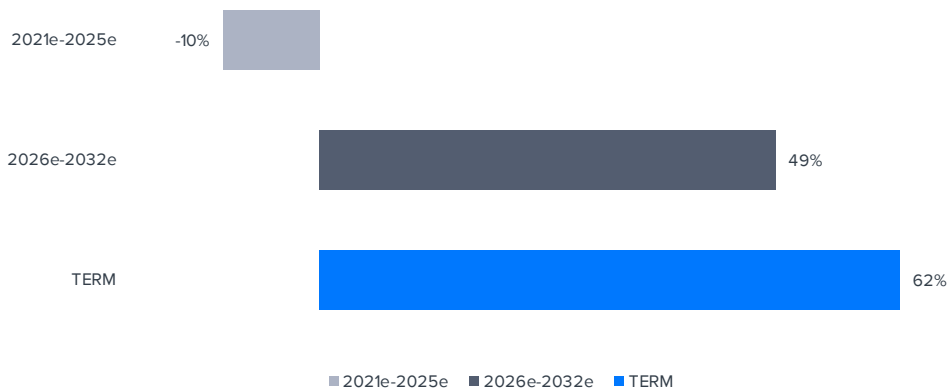
Summary

Income statement	2018	2019	2020	2021e	2022e
Revenue	1.7	2.0	1.6	**2.0**	**2.4**
EBITDA	-2.2	-3.6	-3.2	**-10.1**	**-3.6**
EBIT	-2.5	-3.8	-3.4	**-10.5**	**-6.9**
PTP	-2.6	-4.0	-3.8	**-11.3**	**-7.3**
Net Income	-2.6	-4.0	-3.8	**-17.7**	**-7.3**
Extraordinary items	0.0	0.0	0.0	**-8.0**	**0.0**

Balance sheet	2018	2019	2020	2021e	2022e
Balance sheet total	18.4	14.4	23.8	**18.0**	**20.4**
Equity capital	9.7	5.7	8.7	**-0.2**	**-7.5**
Goodwill	0.0	0.0	0.0	**0.0**	**0.0**
Net debt	-6.4	0.8	4.9	**17.0**	**26.4**

Cash flow	2018	2019	2020	2021e	2022e
EBITDA	-2.2	-3.6	-3.2	**-10.1**	**-3.6**
Change in working capital	-0.3	-0.3	0.4	**0.2**	**0.0**
Operating cash flow	-2.5	-3.8	-2.8	**-9.9**	**-3.6**
CAPEX	-3.3	-3.1	-7.8	**-3.6**	**-5.5**
Free cash flow	-5.8	-6.9	-10.6	**-11.2**	**-9.1**

Growth and profitability	2018	2019	2020	2021e	2022e
Revenue growth-%		17%	-23%	**28%**	**19%**
EBITDA growth-%		60%	-11%	**219%**	**-65%**
EBIT (adj.) growth-%		54%	-10%	**-27%**	**181%**
EBITDA-%	-127.0 %	-173.5 %	-200.1 %	**-498.0 %**	**-148.0 %**
EBIT (adj.)-%	-140.1 %	-184.7 %	-214.5 %	**-121.5 %**	**-287.7 %**
EBIT-%	-140.1 %	-184.7 %	-214.5 %	**-516.6 %**	**-287.7 %**
ROE-%	-54.2 %	-52.1 %	-52.2 %	**-265.2 %**	**190.0 %**
ROI-%	-28.2 %	-24.9 %	-24.6 %	**-64.7 %**	**-36.5 %**
Equity ratio	53.0 %	39.6 %	37.0 %	**-1.1 %**	**-36.8 %**
Gearing	-65.4 %	13.5 %	56.5 %	**-8828.3 %**	**-352.3 %**

Largest shareholders	% of shares
PerkinElmer, Inc.	16.1 %
Antti Kangas	12.1 %
Pasi Soininen	12.1 %
Cor Group Oy	10.1 %
Teemu Suna	6.0 %
Peter Würtz	2.6 %

Valuation multiples	2018	2019	2020	2021e	2022e
EV/S	neg.	0.4	>100	**>100**	**>100**
EV/EBITDA (adj.)	2.9	neg.	neg.	**neg.**	**neg.**
EV/EBIT (adj.)	2.6	neg.	neg.	**neg.**	**neg.**

Source: Inderes

Disclaimer and recommendation history

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