

EQUITY RESEARCH REPORT

The background features a stylized bar chart with bars in shades of green and brown. Overlaid on this is a line graph with a dark line connecting three square markers. The markers are positioned at the top of the first, third, and fifth bars from the left. The line starts at the first marker, dips slightly, then rises sharply through the third and fifth markers.

BACTIQUANT A/S

A contagious technology

2022-02-15

Analyst: Gustav Sillerström

BACTIQUANT A/S

A CONTAGIOUS TECHNOLOGY



BactiQuant A/S (“BactiQuant” or the “Company”) has developed a technology that monitors bacterial contamination in water, proven to detect corrosion at an early stage. Bacterial-contamination causes corrosion, resulting in damages worth billions of DKK annually. With BactiQuant’s competitive and patented technology, the Company has positioned itself as a leader in corrosion prevention, however, the technology is also used in other areas, such as monitoring the quality of drinking water, and is expected to see an increased demand of the products following new governmental regulations. In a Base scenario, Analyst Group estimates a revenue of DKK 53.5m in 2023, which based on an applied EV/S multiple of 3.6x motivates a potential price of DKK 11.4 per share.

▪ Raised Proceeds From IPO Enable Further Growth

BactiQuant has spent over 5 years developing a technology that is now ready to compete globally within both mobile and digital monitoring of bacterial contamination in water. The R & D has been carried out by a competent staff team, and with specialists in several different subject areas, the Company has successfully developed a product that is now ready to compete for the leading global position within monitoring bacterial contamination. Having raised DKK 20m through an IPO in early 2021, the Company is now ramping up investments in both sales personnel and marketing. These investments, in combination with considerable economies of scale, from 2023 and going forward, are some of the catalysts of the expected strong revenue CAGR of 66.1% in 2020-2024.

▪ Registered Patents Grant Competitive Advantage

BactiQuant is active within the Water Technology market where patents for complex technical solutions are crucial for companies to protect their market position. As of 2020, the Company has 14 registered patents, extending in the period 2025-2028. These patents are intended to protect BactiQuant’s technology for measuring microbial contamination, which distinguish from the competition in several key areas. With these patents, the Company is in a great position to secure future important deals.

▪ Covid-19 Remains a Limiting Factor

In order to take advantage of investments in the sales and marketing team, the Company is dependent on close contact with their customers. In-person sales are, together with exposure at trade fairs, of high importance to the Company’s customer relations management as well as brand recognition. As new mutations of the virus spread it should be seen as a risk that Covid-19 could have an affect on the Company’s future growth.

SHARE PRICE | DKK 9.15

VALUATION RANGE

BEAR
DKK 7.9
BASE
DKK 11.4
BULL
DKK 13.1

BACTIQUANT A/S

Share Price (2022-02-14) (DKK)	9.15
Number of Shares Outstanding (#)	18,447,865
Market Cap (DKKm)	168.8
Net cash(-)/debt(+) (DKKm)	-17.3
Enterprise Value (DKKm)	151.5
Price intervall since IPO (DKK)	8.0-19.6
List	First North Copenhagen

DEVELOPMENT

1 Week	-3.7%
1 Month	-4.7%
3 Months	-30.2%
Since IPO (2021-02-01)	-46.1%

MAIN SHAREHOLDERS (2022-01-13)

MVA & CO. Hoding (Morten Miller)	38.1%
Opus Fungus ApS (Morten Reeslev)	10.0-15.0%
Scanelectro Hoding ApS	5.0-10.0%

CEO AND CHAIRMAN OF THE BOARD

CEO	Henrik Sonderup Sorensen
Chairman of the board	Henrik Enegaard Skaanderup

FINANCIAL CALENDAR

Annual Report	2022-03-14
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ESTIMATES (BASE), DKKM	2020A	2021E	2022E	2023E
Revenue	5.5	10.6	21.7	53.5
OPEX	1.3	5.8	8.7	16.0
Personnel costs	3.7	7.7	12.8	15.4
EBITDA	-0.5	-7.7	-7.4	8.7
EBITDA margin	Neg.	Neg.	Neg.	16.2%
Depreciation & Amortization	0.9	1.7	2.4	2.9
EBIT	-1.4	-9.4	-9.8	5.7
EBIT margin	Neg.	Neg.	Neg.	10.7%
EV/S	27.6x	14.4x	7.0x	2.8x
P/S	30.8x	16.0x	7.8x	3.2x

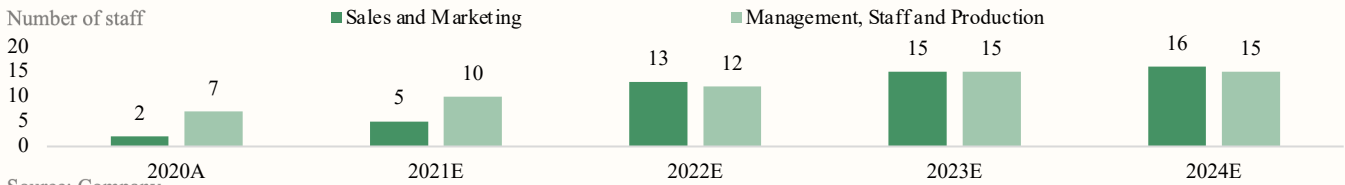
INVESTMENT THESIS

**RAISED
CAPITAL
ENABLES
FURTHER
EXPANSION**

Proceeds From IPO Used to Expand Sales and Marketing Team From 2 to 16 Members

BactiQuant went public through an IPO on First North Copenhagen in early 2021. By the IPO, the Company raised DKK 20m net proceeds, in order to enable the next phase in the Company's development. After years of developing a pioneering product, BactiQuant are now ready to scale up the Company's business. The Company has planned to allocate the raised capital accordingly: 49% sales and marketing globally, 25% product and business development, 13% administration, and 13% management and organizational development. With 49% of the raised capital being allocated to new recruitments within sales personnel, BactiQuant are expected to increase its market presence, that is estimated to fuel future revenue growth.

Big investments into sales personnel set foundation for BactiQuant's next phase.



**LAWS AND
REGULATIONS
ACT AS
POTENTIAL
TRIGGERS**

Governmental Requirements on Water Quality Equals Increased Demand

According to WHO, it is estimated that 2 billion people currently use water from contaminated water sources. Alongside that, diarrhea kills 525,000 children under the age of 5 every year, and a large share of these cases are caused by poor water quality. Governments and multinational collaborations have begun to act in order to turn these numbers around. One example of this is EUs' drinking water directive, announced in 2020 and set to be implemented by all member countries by 2023. These governmental requirements put pressure on countries to act against poor levels of water management and should thus increase the demand for BactiQuant's products. A potential trigger in the long term is the potential of other parts of the world implementing similar regulations and goals, following Europe's lead. The parts of the world with the greatest problems concerning contaminated water, such as India and large part of Africa, are overrepresented in e.g. deaths caused by diarrhea. The large share of people who lack access to clean water, and the consequences this entails, showcase the vast need for BactiQuant's technology.

**PATENTS FOR
UNIQUE
TECHNOLOGY
PROVIDES A
STRONG
COMPETITIVE
ADVANTAGE**

14 Strong Patents Acts as a Moat Against Competition

As of 2021, BactiQuant has 14 registered patents in 12 different countries, as well as in the European Patent Office. BactiQuant's current patents expire in the period 2025-2028, the patents protect the Company's technology to measure bacterial contamination levels in water. The competition mainly comes from two other technologies: ATP-bioluminescens and Flowcytometry. BactiQuant's technology stands out from the competing technologies in several key areas, such as ease of use and credibility. These competitive advantages, combined with the registered patents, act as a moat and protect the Company against competition.

Further Expansion Threatened by the Covid 19 Pandemic

Restrictions following the Pandemic continue to cause problems and BactiQuant has been severely affected by fewer customer interactions and less market presence. In the close future, the global pandemic might also impact the recruitment process for the sales and marketing team, this could cause delays in finding the right talent and poses a risk for short-term growth.

HIGHLIGHTS



COMPANY DESCRIPTION

BactiQuant A/S is the result of a split-up in 2020 of the company Mycometer A/S, into two separate companies; Mycometer A/S and BactiQuant A/S. Mycometer A/S was founded in 1998 by two Ph.D. from the University of Copenhagen, Morten Reeslev and Morten Miller, the current CIO. BactiQuant has developed a technical solution and offers three different products that allows for fast analysis and robust methods for monitoring bacterial contamination levels in water. The technology developed is used in several industries as a prevention method against corrosion, which causes damages worth DKK 1,812b in the US alone every year.

EXISTING
CUSTOMERS



BactiQuant's Business and Revenue Model

BactiQuant operates through B2B sales of technology and services for water supplies and towards industries such as data centers. The products are put in practical use in water facilities to ensure optimum usage and handling of water through quantifying the content of bacteria. The business can be divided into 3 different product segments:

- **BactiQuant Mobile Lab:** The Mobile lab costs approximately DKK 30,000-40,000 per unit. The product is handheld and can be used to perform routine monitoring of bacterial content. When purchasing a unit, the customer receives practical training and is provided with an agreed amount of chemistry tests, and after the agreed number of tests the customer has to continuously buy chemistry tests.
- **BactiQuant Online:** The Online technology costs approximately DKK 85,000-95,000 per unit. The product can monitor and quantify the content of bacteria in water systems in real time at any given point. Like the Mobile Lab, the Online technology includes both practical training and an agreed amount of chemistry tests that the customer has to continue to buy after the agreed amount has expired.
- **Chemistry tests:** A chemistry test costs between DKK 90-100 depending on the size of the order and is required for the function of the other two products. The number of tests required annually varies from customer to customer, but according to the Company, the average customer requires 200 tests per year.

Cost Drivers

The costs estimated in the forecast are mainly driven by production costs of the units and tests sold. Retrieval costs are also included in the COGS and as the worldwide shipping costs have risen drastically during the last few years, the Company's gross margin has been affected negatively. As of 2020, personnel costs amount to 22.9% of sales, and production costs amount to 18.0% of sales. With several large investments following the IPO, both personnel costs and COGS are expected to increase heavily in order to drive the estimated strong revenue growth.

Strategic Opportunities

With several large investments ahead, an intense time is waiting with expenditures in numerous business segments. During this expansion, it is of great importance for the Company to be able to attract competent and fitting personnel in order to keep the momentum and scale up the Company's sales and marketing team. In the past, most of the sales have been made through distribution channels. However, in order to improve margins and turn profitable, it is essential to develop a stronger indoor sales team that can manage the deals instead of outside external distribution channels.

LARGE
AFTERMARKET
PROVIDES
SECURE CASH
FLOWS

FURTHER
INVESTMENTS IN
PERSONNEL AND
PRODUCTION
DRIVE COSTS

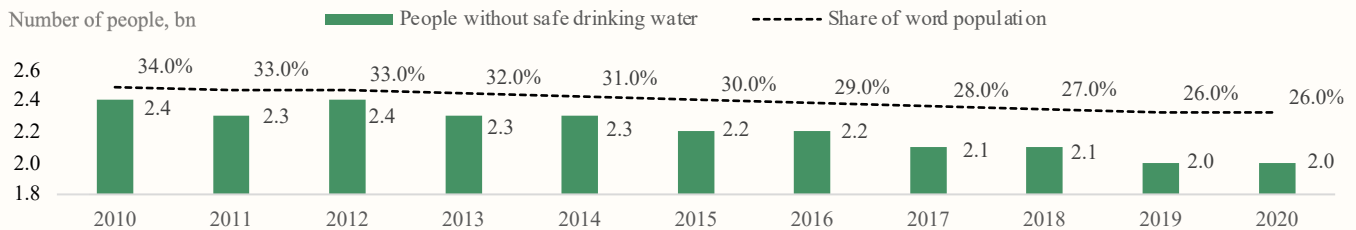
MARKET ANALYSIS

**2 BILLION
PEOPLE DRINK
WATER FROM
CONTAMINATED
SOURCES**

A Great Need for Technologies That Can Monitor Drinking Water Quality

In large parts of the world, the essential humanitarian resource water is a scarce commodity. According to WHO, at least 2 billion people drink water from sources contaminated with e.g., faeces and this spread deadly diseases such as cholera, diarrhea and polio. Several countries and organizations are acting against this problem, an example is UN's sustainable development goals, where clean water is an essential part. Despite these actions, 26% of the world population do not have access to safe drinking water in 2020. The water quality monitoring market as of 2020 is estimated to be worth DKK 20.2b, this number is according to WBOC expected to reach DKK 30.0b in 2026, corresponding to a growth rate of 5.8% CAGR.

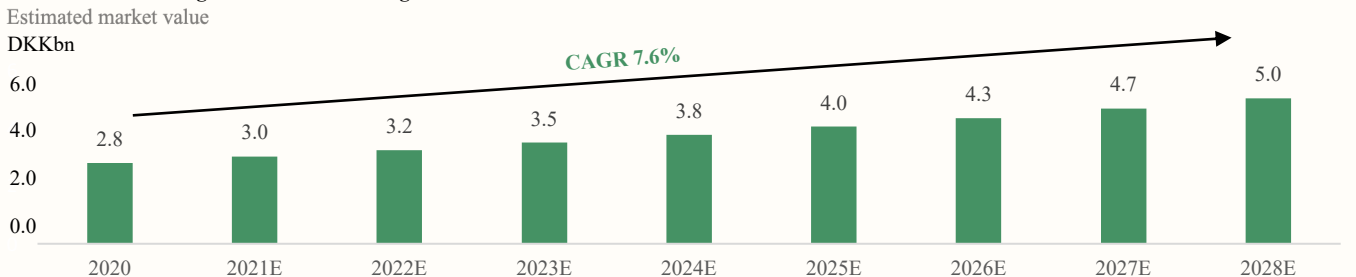
A large share of world population does not have access to safe drinking water.



Corrosion Causes Damages Worth Billions Annually

The technology of monitoring bacterial contamination is also used in industries to prevent and avert corrosion. In the US alone, corrosion causes damages to businesses worth DKK 1,812b per year. Worldwide, it is estimated that 20% of the total corrosion costs are due to microbial and bacterial conditions. Due to the large damages' corrosion causes, the market of anti-corrosion products has shown strong growth the last few years. The market was estimated to be worth DKK 2.8bn in 2020, driven by safety regulations and aging infrastructures, it is estimated to grow with a CAGR of 7.6% until 2028.

Corrosion monitoring market estimated to grow with a CAGR of 7.6% until 2028.



Competing Technologies

At the moment there are three technologies used for monitoring bacterial contamination in the market:

- ATP-bioluminescens
- BactiQuant's technology
- Flowcytometry

The reason for the low number of competing technologies are high entry barriers for new actors on the market. Due to patents, new companies require high levels of expertise and large capital in order to develop new methods, which protects BactiQuant's current market position.

**A MARKET WITH
HIGH ENTRY
BARRIERS**

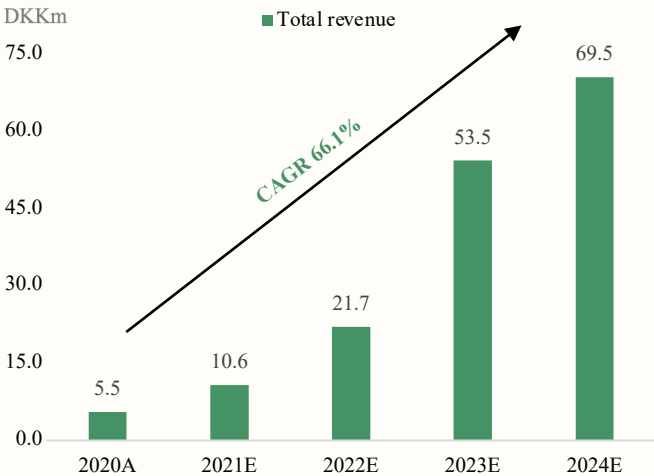
FINANCIAL FORECAST

Raised Capital From IPO Set to Spark Strong Revenue Growth

Early 2021, BactiQuant raised approximately DKK 20m through their IPO. This capital is set to be used for various investments, the biggest share of the raised capital, 49%, is intended to be invested in expanding the sales and marketing team globally. In the past, most sales have been made through various distribution channels, however, through investing in an own sales force, the Company is expected to improve its margins. Prior to the IPO, BactiQuant has for several years spent millions of DKK in developments costs for the technology and has therefore not prioritized sales. An example is DKK 5m that has been spent developing the product line BactiQuant Online. The Company's focus on developing a pioneering product, has historically meant low revenues. However, an expansion of the sales and marketing team, from 2 members in 2020 to 16 members in 2024, combined with economies of scale arising in 2023, is expected to drive the strong estimated revenue CAGR of 66.1% between 2020-2024.

REVENUE
GROWTH OF
66.1% CAGR
2020A-2024E

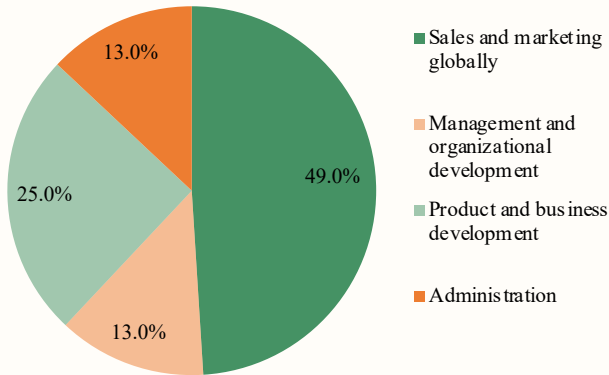
Strong estimated revenue growth driven by investments in sales and marketing personnel.



Sources: Company, Analyst Group

DKK 20m raised capital from IPO intended to be spent accordingly:

Distribution of IPO proceeds

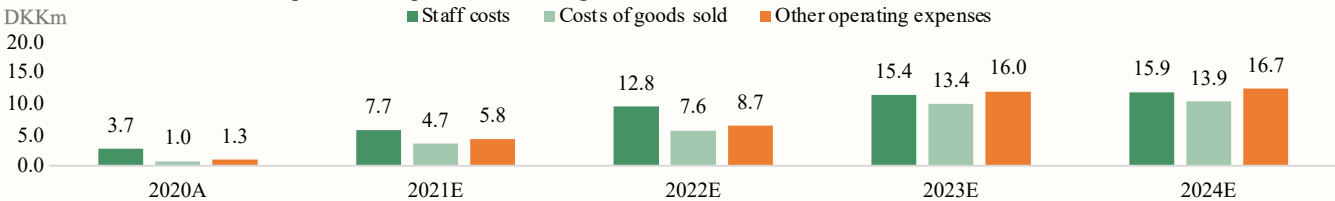


Production and Expansion of Sales Team are Expected to be the Main Cost Drivers

With an expansion of sales and marketing personnel from 2 members in 2020 to 16 in 2024, personnel costs are estimated to grow from DKK 3.7m (67.4% of sales), in 2020, to DKK 16.4m (22.9% of sales), in 2024. However, the average cost per employee is expected to decrease from DKK 527.7t in 2020 to DKK 512.8t in 2024 due to a larger share of sales personnel, with an estimated lower salary than management staff. With an estimated top line CAGR of 66.1% in 2020-2024, a commensurable growth is expected in COGS due to production costs. The greatest growth in both COGS and OPEX are estimated from 2020-2022 due to new investments, across several business segments during this time period. However, as BactiQuant scale up their business, economies of scale from 2023 and onwards, are expected to further drive increased margins. The economies of scale can be seen in the estimated EBIT margin, projected to turn positive in 2023, according to Analyst Groups estimates. In 2020-2024 the EBIT margin is expected to increase from negative DKK 1.4m to positive DKK 22.8m.

PERSONNEL AND
PRODUCTION
EXPECTED TO
BE THE MAIN
COST DRIVERS

Personnel and other external expenses are expected to increase given new investments.



Source: Analyst Group

VALUATION: BASE SCENARIO

Peer Valuation	Market Data (DKKmn)		Financials 2023E		Valuation	
Company name	Market Cap	Enterprise value	20A-23E Revenue CAGR	EBIT margin	EV/S	P/S
Permascand Top Holding	1 323.9	1 344.8	11.4%	19.1%	2.9	2.9
QuantaFuel ASA	1 967.8	1 789.5	164.5%	13.6%	5.8	6.4
VOW ASA	1 583.7	1 593.0	25.1%	16.4%	1.9	1.9
Nexam Chemical	445.1	425.9	21.3%	10.3%	1.7	1.7
Median	1 453.8	1 468.9	23.2%	15.0%	2.4	2.4
Average	1 330.1	1 288.3	55.6%	14.9%	3.1	3.2
BactiQuant	168.8	151.5	76.7%	10.7%	2.8	3.2

Sources: Analyst Group, Bloomberg

Valuation: Base Scenario

Through a relative valuation, consisting of peers in the water technology and the clean tech industry, BactiQuant's revenue CAGR and EBIT margin have been put into perspective relative to its peers. The valuation has been made based on estimates in 2023 as the Company is expected to reach a more mature stage in 2023. Even though a lot of the direct competition consists of unlisted companies, a relative valuation illuminates BactiQuant's growth rate and implies a premium valuation, according to Analyst Groups estimates, because of the following reasons:

- Analyst Group estimates a revenue CAGR of 76.7% in 2020-2023 compared to the peer median of 23.2%.
- Analyst Group estimates an EBIT-margin of 10.7% in 2023, compared to the peer median of 15.0%. Due to expected economies of scale in 2023 and onwards, Analyst Group estimates EBIT-margin to further grow and to reach 28.5% in 2024.

BactiQuant is facing an important time ahead where big investments in staff are set to drive a revenue CAGR of 76.7% in 2020-2023. This, combined with an estimated EBIT margin reaching 28.5% in 2024 motivates a premium valuation compared to its peers. However, the size deviation has also been taken into consideration and motivates a moderate premium of 15%, compared to the peer average. This implies a target multiple of 3.6x EV/S, which motivates a potential price of DKK 11.4 per share.

**11.4 DKK PER
SHARE IN A
BASE
SCENARIO**

**13.1 DKK PER
SHARE IN A
BULL
SCENARIO**

**7.9 DKK PER
SHARE IN A
BEAR
SCENARIO**

Bull scenario

The following value drivers are a selection of potential factors in a Bull scenario:

- After a turbulent time, the Covid-19 Pandemic has reduced the impact on the Company from 2022 and onwards, enabling the Company to accelerate its sales.
- The upcoming challenge of recruiting new sales talent runs smoothly, resulting in faster recruitment of sales personnel than expected.
- Further cooperation with big customers such as Meta and Samsung Engineering.

In a Bull scenario, a target multiple of 3.6x EV/S is motivated, which yields a potential price of DKK 13.1 per share, based on an estimated revenue of DKK 62.5m in 2023.

Bear scenario

The following statements are a selection of potential factors in a Bear scenario:

- The global pandemic continues to cause problems for BactiQuant. It affects both the recruitment process, that is delayed, as well as the ability to meet and connect with new customers.
- Negligible economies of scale, given the fact that production levels have not yet reached full potential.
- Increased competition from competing technologies results in declining market shares.

In a Bear scenario, a target multiple of 3.6x EV/S is motivated, which yields a potential price of DKK 7.9 per share, based on an estimated revenue of DKK 35.9m in 2023.

APPENDIX

Base Scenario. DKKm	2020A	2021E	2022E	2023E	2024E
Revenue	5.5	10.6	21.7	53.5	69.5
Total revenue	5.5	10.6	21.7	53.5	69.5
COGS	-1.0	-4.7	-7.6	-13.4	-13.9
Gross profit	4.5	5.8	14.1	40.1	55.6
Gross margin	82.0%	55.0%	65.0%	75.0%	80.0%
OPEX	-1.3	-5.8	-8.7	-16.0	-16.7
Personnel costs	-3.7	-7.7	-12.8	-15.4	-15.9
EBITDA	-0.5	-7.7	-7.4	8.7	23.0
EBITDA margin	Neg.	Neg.	Neg.	16.2%	33.1%
Depreciation & Amortization	-0.9	-1.7	-2.4	-2.9	-3.2
EBIT	-1.4	-9.4	-9.8	5.7	19.8
EBIT margin	Neg.	Neg.	Neg.	10.7%	28.5%
Financial incomes	0.0	0.0	0.0	0.0	0.0
Financial expenses	0.0	0.0	0.0	0.0	0.0
EBT	-1.4	-9.4	-9.8	5.7	19.8
Tax	-0.3	0.0	2.2	-1.3	-4.4
Net earnings	-1.7	-9.4	-7.7	4.5	15.4
Net margin	Neg.	Neg.	Neg.	8.4%	22.2%

Bear Scenario. DKKm	2020A	2021E	2022E	2023E	2024E
Revenue	5.5	10.0	15.2	35.9	43.1
Total revenue	5.5	10.0	15.2	35.9	43.1
COGS	-1.0	-4.5	-6.1	-9.0	-8.6
Gross profit	4.5	5.5	9.1	26.9	34.5
Gross margin	82.0%	55.0%	60.0%	75.0%	80.0%
OPEX	-1.3	-5.2	-7.9	-10.8	-9.9
Personnel costs	-3.7	-7.7	-12.8	-15.4	-15.9
EBITDA	-0.5	-7.4	-11.6	0.8	8.7
EBITDA margin	Neg.	Neg.	Neg.	2.2%	20.1%
Depreciation & Amortization	-0.9	-1.5	-1.8	-2.2	-2.2
EBIT	-1.4	-9.0	-13.4	-1.4	6.5
EBIT margin	Neg.	Neg.	Neg.	Neg.	15.1%
Financial incomes	0.0	0.0	0.0	0.0	0.0
Financial expenses	0.0	0.0	0.0	0.0	0.0
EBT	-1.4	-9.0	-13.4	-1.4	6.5
Tax	0.3	0.0	0.0	0.3	-1.4
Net earnings	-1.1	-9.0	-13.4	-1.1	5.1
Net margin	Neg.	Neg.	Neg.	Neg.	11.7%

APPENDIX

Bull Scenario, DKKm	2020A	2021E	2022E	2023E	2024E
Revenue	5.5	12.1	26.7	62.5	81.2
Total revenue	5.5	12.1	26.7	62.5	81.2
COGS	-1.0	-5.5	-9.3	-15.6	-16.2
Gross profit	4.5	6.7	17.3	46.9	65.0
Gross margin	82.0%	55.0%	65.0%	75.0%	80.0%
OPEX	-1.3	-6.5	-10.7	-18.7	-19.5
Personnel costs	-3.7	-8.7	-14.4	-17.4	-18.5
EBITDA	-0.5	-8.6	-7.7	10.7	27.0
EBITDA margin	Neg.	Neg.	Neg.	17.1%	33.3%
Depreciation & Amortization	-0.9	-1.6	-2.2	-2.7	-3.1
EBIT	-1.4	-10.2	-9.9	7.9	24.0
EBIT margin	Neg.	Neg.	Neg.	12.7%	29.5%
Financial incomes	0.0	0.0	0.0	0.0	0.0
Financial expenses	0.0	0.0	0.0	0.0	0.0
EBT	-1.4	-10.2	-9.9	7.9	24.0
Tax	0.3	0.0	2.2	-1.7	-5.3
Net earnings	-1.1	-10.2	-7.7	6.2	18.7
Net margin	Neg.	Neg.	Neg.	9.9%	23.0%

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Bull and bear

The recommendations in the form of bull alternatively Bear aims to provide a comprehensive picture of Analyst Group's opinion. The recommendations are developed through rigorous processes consisting of qualitative research and the weighing and discussion with other qualified analysts.

Definition Bull

Bull is a metaphor for an optimistic view of the future. It indicates a belief in improvement.

Definition Bear

Bear is a metaphor for a pessimistic view set on the future. It indicates a belief deterioration.

Other

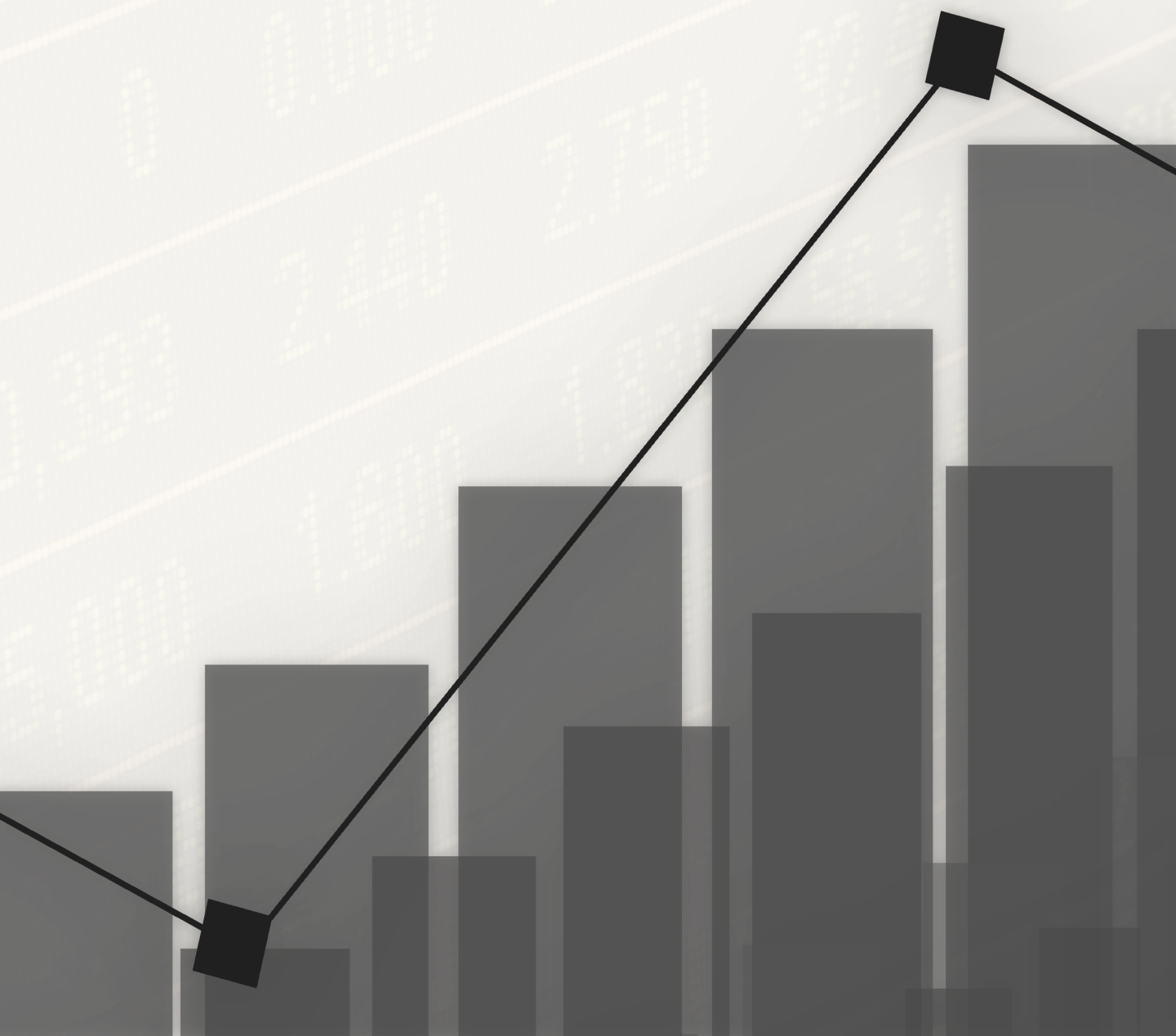
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