

Annual Report 2020



The share



TOP 10

Share in the Prime Standard

>20,000

Shareholders at the end of the year

+113.7%

since 1/1/2020

+308.1%

since the Corona low on 16 March 2020

IR Milestones 2020

6 investment banks (+3 in 2020)
analysing the va-Q-tec share



Virtual Annual General Meeting
at "The Curve"

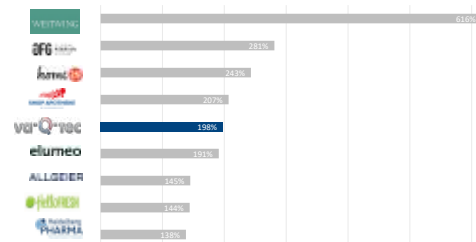


Significantly broadened
public attention



TOP 10 Placement in Prime Standard

Change in share price, January - December 2020, in %:



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2020 the most important figures at a glance

519

Employees

25

Nationalities

8

Group companies

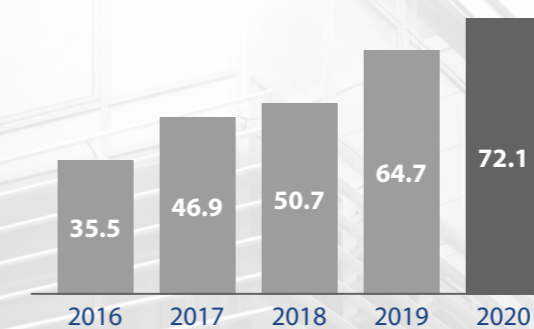
1.8 Mio.

Vacuum Insulation Panels produced

~2,500

Container in the fleet

Revenue 2016 - 2020 EUR million



EBITDA 2016 - 2020 EUR million



*Adjusted for one-off expenses for the IPO.

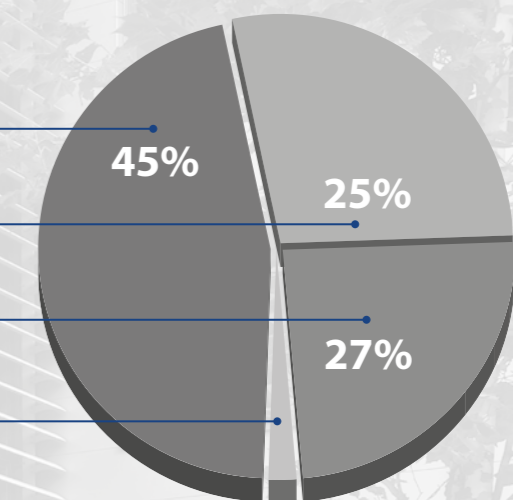
Revenue by Segments 2020

Services: million 32.7 EUR

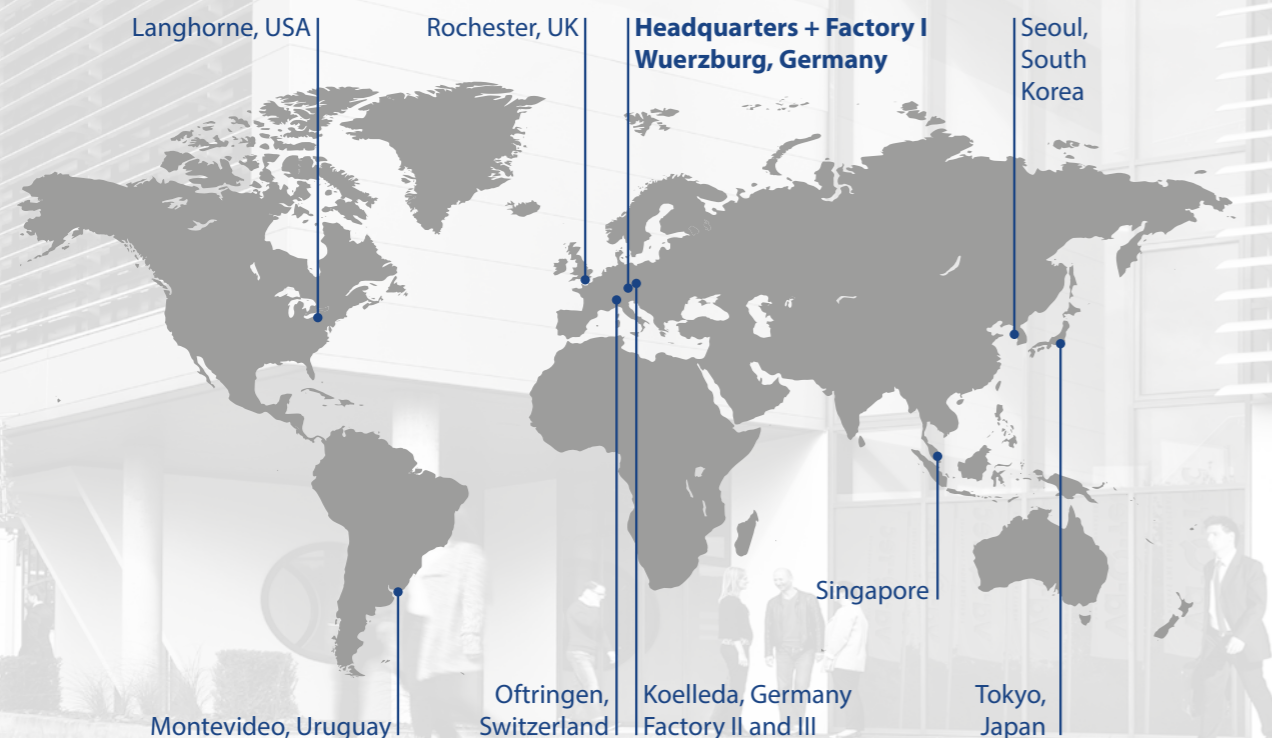
Products: million 18.3 EUR

Systems: million 19.5 EUR

Other: million 1.6 EUR



Global presence



Group financial figures

EUR millions (unless stated otherwise)	2020	2019	Change
Revenues	72.1	64.7	+12 %
EBITDA (IFRS)	11.4	9.7	+18 %
EBITDA margin (IFRS)	14 %	13 %	
Equity ratio	35 %	40 %	
Year-average number of employees	519	464	+55

1 LETTER TO SHAREHOLDERS

1.1 LETTER FROM THE MANAGEMENT BOARD



Dr. Joachim Kuhn (CEO), Stefan Döhmen (CFO)

Ladies and gentlemen, dear shareholders, employees, partners, friends and customers,

The 2020 year was in many respects a challenging year for the entire va-Q-tec Group: one that was difficult to plan, but in the end a very successful year – and the most successful in the company’s history to date.

After the outbreak of the Covid-19 pandemic, it became clear in the first months of 2020 that there would be no short-term return to the former normality. We quickly realized that with our unique technology we could make a contribution to turning this extraordinary situation back into a new, healthy normality. This is because special facilities are required for the temperature-stable shipment of coronavirus test kits and vaccines. For this purpose, we at va-Q-tec immediately created additional capacities, with many millions of test kits already being securely delivered all over the world in our containers in the second quarter of 2020, in demanding logistical circumstances. The first vaccines have also been transported worldwide in our containers since the end of the third quarter of 2020, as well as on a large scale at national level in Germany since the end of December 2020.

The functioning of vaccines and the challenges relating to temperature-controlled shipment have become the focus of public attention. Whether at extreme sub-zero temperatures during global shipment or at refrigerator temperature, i.e. between 2 °C and 8 °C on the so-called "last mile" to vaccination stations, old people's homes or doctors' surgeries: va-Q-tec offers reliable, safe solutions for all sections of these particularly temperature-sensitive supply chains ("TempChains"). Consistent temperature stability and logging of an assured temperature chain are absolutely crucial to the successful and expeditious distribution of vaccines. Our "Made in Germany" high-tech product ensures stable temperature windows for up to 200 hours, including in extreme and fluctuating outside temperatures – and this completely self-sufficiently without costly and often insecure external energy supplies.

Moreover, the 2020 year has taken the public perception of va-Q-tec to new, previously hardly imaginable dimensions. As a consequence, the level of awareness of our company has also risen extremely sharply internationally. Countless international media, including numerous international television teams, reported on va-Q-tec's contribution to the fight against the pandemic. We were named alongside major international vaccine manufacturers. This is because we have some distinctive unique selling points, especially when it comes to transports at minus temperatures (SubZero). Early on and almost alone, we had already been approaching this topic in a visionary way for ten years.

Given the strong performance of our shipment solutions, we are also very proud to have continued our profitable growth path in 2020 despite all the pandemic-related adversities, and to have realized the best financial year in the company's history. Revenues grew by 12% to EUR 72 million. Since 2015, the basis for the IPO in 2016, we have more than tripled our revenue. Before currency effects, the operating profit (EBITDA) even climbed by 27% to EUR 12 million. We have thereby achieved our forecast for 2020. The TempChain logistics segment, in particular, again proved to be a growth driver. For example, the shipment of test kits partially offset revenues foregone in the Products segment due to coronavirus, as well as in the shipment of clinical studies.

We are all the more pleased with the company's positive business trend because it strengthens our conviction that a sustainable and responsible business model is not only of great benefit for society, but also pays off commercially for the company. Taking responsibility for the safety and security of products and for the environment is nothing new for us. After all, our technology has been contributing to energy efficiency in products from a wide range of industries since the company was founded twenty years ago: whether in the refrigerator industry, hot water tanks, industrial plants, construction, or in aviation. For this reason, in 2020, we ourselves also took a step forward: we were the first supplier of temperature-stable shipment solutions and the first producer of high-tech insulation materials to achieve climate neutrality at our production sites. Last year, emissions amounting to 1,700 t CO₂ were reduced by process optimization and various energy-saving measures. We offset the remaining emissions by supporting internationally recognized climate protection projects in Germany and Uruguay. In our 2021 anniversary year, we are planning further measures to enhance our own energy efficiency and to further optimize natural resource utilization. In addition to the continuous improvement of processes in temperature-controlled logistics, we are also developing, for example, even more environmentally compatible and at the same time highly energy-efficient thermal boxes.

va-Q-tec also promotes companies whose business model and products fit well with our strategy. In 2020, for example, va-Q-tec acquired an interest in 3D printing start-up ING3D GmbH. With the 3D printing technology developed by ING3D, it is possible to manufacture extremely light, non-combustible and freely shapable lightweight materials. The Mineral Direct Laser Sintering (MDLS) process, for which ING3D has filed a patent application and which is the first purely mineral/ceramic printing process worldwide, opens up completely new possibilities in material production. ING3D won the very well-known North Bavarian Business Plan Competition in 2020, exactly twenty years after va-Q-tec won this competition. At SUMTEQ GmbH, a company in which va-Q-tec has held an interest for some time, a pilot plant was successfully commissioned in 2020. SUMTEQ is developing an innovative high-tech production process for the manufacture of a stable nanoporous foam, an insulating foam for the next decades. SUMTEQ GmbH closed a financing round in 2020 with the participation of all existing investors.

The subsidiaries in the UK, Singapore, Korea, Switzerland, Japan, Uruguay and the USA performed particularly well in 2020. All subsidiaries are particularly important for local presence, the expansion of regional operating activities, and the perception of va-Q-tec as a reliable global and regional partner.

As in 2019, the va-Q-tec share posted a brilliantly positive performance in 2020. After a 250% gain in 2019 and ranking seventh among all Prime Standard stocks, we saw another excellent 300% gain in 2020 to rank fourth in the Prime Standard. In both years combined, va-Q-tec ranks second among the more than 1,000 stocks in this premium class. va-Q-tec thereby ranks best among all industrial companies. The number of shareholders has also increased enormously, by 400% from 4,000 to over 20,000 shareholders.

With our promising business model, the additional tailwind for international, temperature-stable supply chains, and the numerous potential application areas for our technology, we see a very positive future for va-Q-tec in 2021 and beyond. For example, at the end of 2020, we reached a global agreement with one of the world's largest pharmaceutical companies for the international distribution of a coronavirus vaccine. The agreement is the most extensive in our twenty-year company history. In the past year, we have already impressively demonstrated our expertise and will consequently also play a strong role in the upcoming worldwide distribution of coronavirus vaccines as far as most vaccines are concerned. For the 2021 financial year, we expect particularly strong revenue growth to a level of between EUR 90 million and EUR 100 million, depending on when and to what extent production levels for Covid-19 vaccines are ramped up and how widespread global distribution is realized, accompanied by a further increase in the EBITDA margin, mainly due to economies of scale.

At the same time, however, our innovative high-tech solutions also put us in an excellent long-term position to benefit from the megatrends of thermal energy efficiency and the growing number of "TempChain" shipments. Accordingly, we will also focus our business even more strongly on these two topics and align them operationally. By using vacuum insulation panels, we aim to improve thermal energy efficiency in industry, technology, construction and mobility. With regard to TempChains, we will continue to expand our footprint, as an ever growing number products of the (bio-pharmaceutical) industry need to be transported and stored under temperature control.

We have a clear vision for va-Q-tec. We aim to become the leading high-performance company in the area of thermal energy efficiency and thermal packaging. We will only achieve this vision with an outstanding team. In 2020, a year that was a great challenge for all of us personally and professionally, our employees demonstrated team spirit and performance. Under these exceptional conditions, a great deal of extra effort was made in order to ensure the stability of supply chains, maintain production and ramp up capacity. For this reason, we wish to thank all our employees worldwide for their tireless commitment, great flexibility and strong team spirit.

However, we would also like to thank you, our valued customers, business partners, the Supervisory Board and shareholders for our fruitful collaboration. We shape our business with courage, passion and responsibility. We would be delighted if you would continue to accompany us on this journey.



Dr. Joachim Kuhn
(CEO)



Stefan Döhmen
(CFO)

1.2 SUPERVISORY BOARD REPORT



Dr. Gerald Hommel, Chairman of the supervisory board

Dear shareholders,

In 2020, the capability of va-Q-tec and its products has become clearer than ever. During the coronavirus crisis, the company once again proved that it can quickly and precisely ensure temperature-controlled supply chains anywhere in the world. As the Supervisory Board, we are particularly proud of this achievement.

The Supervisory Board held seven meetings in the 2020 financial year. The Supervisory Board's main task is to consult with and supervise the Management Board. The subject of our regular consultations in the plenary sessions was, among other matters, va-Q-tec's financial position and performance as well as its organizational structure AG. An important focus was also on opportunities and risks, the latter particularly in connection with the possible impact of the Covid-19 pandemic on employees, financial position and performance, and supply chains. Further topics of our activities in the period under review included, in particular, a critical assessment of strategy and business development, the international orientation of va-Q-tec AG, and corporate financing and liquidity.

The fourth Annual General Meeting (AGM) after the IPO was held on 14 August 2020. As a consequence of the general restrictions imposed by the Covid-19 pandemic, the AGM was conducted virtually for the first time. Despite the new format, attendance was high at 64.9% of the share capital. All agenda items were approved by large majorities. From the innovative, multimedia "Curve" event room at the Vogel Convention Center in Würzburg, the Management Board reported in detail on the performance of va-Q-tec AG in the 2019 financial year, for which the actions of the Management Board and Supervisory Board were approved by a clear majority. Almost 300 questions from shareholders were answered.

In the year under review, the Supervisory Board of va-Q-tec AG performed all of the duties incumbent upon it under the law, the bylaws and the rules of procedure with the requisite care and diligence, and in doing so was guided by the German Corporate Governance Code (“DCGK”). We advised and supervised the Management Board in its management of the company. The Management Board involved us directly, at an early stage, and comprehensively in all fundamental decisions. It provided us with regular, timely and comprehensive information through written and oral reports both within and outside the context of meetings. In this connection, we were informed about all relevant aspects of business planning, including financial, investment and personnel planning, as well as the company’s financial position and profitability. We – or the relevant Supervisory Board committees – thoroughly examined and discussed the Management Board’s proposed resolutions. The Supervisory Board was also in regular contact with the Management Board and was kept directly informed of current business developments, particularly with regard to the Covid-19 issue, and significant business transactions. In particular, due to the current development of va-Q-tec AG in times of the pandemic, a total of six telephone conferences with the participation of the Management Board and the entire Supervisory Board were held from April to July 2020 in addition to the regular meetings.

va-Q-tec AG has created a strong basis for the further development of the company, as presented in this annual report. The Supervisory Board conducted a critical evaluation of business transactions central to the company’s development, and contributed corresponding suggestions and ideas for discussion with the Management Board. Measures and transactions requiring approval were consulted about and suitably decided upon between the Management and Supervisory boards.

Personnel changes in the Supervisory and Management boards

The Deputy Chair of the company’s Supervisory Board, Mr. Uwe H. Lamann, passed away on 23 July 2020. The Supervisory Board, the Management Board and employees mourn the loss of an outstanding personality who played a key role in the positive development of the company during his time as a member of the Supervisory Board from 2014 onwards.

By resolution of the Supervisory Board dated 14 August 2020, Dr. Barbara Ooms-Gnauck assumes the role of Deputy Chair of the Supervisory Board. Dr. Eberhard Kroth is elected as a new member of the General Committee as of the same date. In future, the Nomination Committee will consist of Dr. Hommel (Chair), Dr. Ooms-Gnauck and Mr. Krämer.

No personnel changes occurred in the Management Board in the reporting period. Dr. Joachim Kuhn is Chair of the Management Board (CEO). Mr. Stefan Döhmen also continues to serve as the company’s Chief Financial Officer (CFO).

Education and training of the Supervisory Board

In the 2020 financial year, the Supervisory Board fulfilled its training and development obligations responsibly, appropriately and in a variety of ways. The members of the Supervisory Board are responsible for the training and continuing education measures required for their tasks, such as on corporate governance issues and changes to the legal framework (e.g. due to Act Implementing the Second Shareholders’ Rights Directive [ARUG II], and the new German Corporate Governance Code [DCGK]), and are supported in this by the company. The Supervisory Board also regularly trains itself with regard to new technologies or the digitalization area.

In addition, the Supervisory Board was informed at an early stage about new products developed by the company by the managers concerned, so that all members of the Supervisory Board were always well informed about current issues affecting the company. In addition, the individual members of the Supervisory Board continued the further training for which they themselves are responsible by way of studying relevant professional journals and literature as well as by participation in training measures offered outside the company.

New members of the Supervisory Board are given the opportunity to gain an insight into the respective areas of the company, not only with the Management Board but also with employees of the first management level below the Management Board, as part of an on-boarding process.

Meetings of the Supervisory Board and its committees

As part of its regular consultations, the Supervisory Board concerned itself with the operative and strategic position of va-Q-tec AG, with written and verbal reports by the Management Board providing it with extensive information about business and financial developments. The Supervisory Board held a total of seven plenary meetings. In accordance with the suggestions of the DCGK, telephone and video conferences should not be the rule. At va-Q-tec AG, personal attendance at meetings is the rule. Due to the special circumstances of the Covid-19 pandemic, one Supervisory Board meeting and one Audit Committee meeting were held as virtual meetings in the 2020 financial year. All other meetings of the full Supervisory Board and of the committees were held in person, with the possibility of participation in virtual form. The possibility of participation in virtual form was only used in a few individual cases.

Due to the situation, the main part of the **first meeting on 19 and 20 March 2020** was to inform the Supervisory Board about the effects of the coronavirus pandemic on va-Q-tec AG and related measures taken by the company. The Management Board reported that business operations were normal and stable, and that all divisions were acting with the utmost care to prevent as far as possible any impact on business operations, both in production and in the rental and service business. For this purpose, several Covid-19 task forces were also set up to assess the situation on a daily basis and take necessary decisions to ensure the supply chain, production, and security measures in the personnel area etc. The measures to ensure liquidity in worst-case scenarios, including postponements of investments as well as additional financing measures, were also explained to the Supervisory Board. Overall, these statements also reflect the status of the assessment and evaluation of the situation, which are communicated in the risk and opportunity report and in the notes to the financial statements under the section addressing events the balance sheet date, in the recently completed consolidated financial statements. In addition to current developments, the presentation, discussion and resolution on the annual financial statements, management report and notes to the separate and consolidated financial statements of va-Q-tec AG for the 2019 financial year was a key topic of this Supervisory Board meeting. During the meeting, the auditors reported in summary form on the results of the audit, in particular also taking into account the Covid-19 situation. Following in-depth discussion, the Supervisory Board passed a unanimous resolution concerning the approval and adoption of the 2019 separate annual financial statements as well as the approval of 2019 consolidated financial statements, including the management reports.

The second meeting on 27 April 2020 focused on a discussion of current business trends and the Group's liquidity on the basis of the figures for the first quarter of 2020. The focus was once again on the effects of the pandemic on the business activities and in particular on the financial position and performance of va-Q-tec AG. The Management Board had prepared a scenario analysis for this purpose. A further topic of the meeting was risk management in addition to the risk inventory carried out in the second half of 2019. Finally, the preparations for the Annual General Meeting of va-Q-tec AG were discussed with the Supervisory Board. This was originally planned to be a physical meeting, but due to the Covid-19 situation had to be postponed and switched to a virtual format.

The third meeting on 29 June 2020 focused on discussing the Group's current business performance based on the figures up to and including May 2020. Accordingly, business performance was up significantly year-on-year despite the coronavirus, due in large part to the very good performance of the container rental business in va-Q-tec Ltd. (UK). In addition, the Management Board addressed the current development of the VIP segment, which had slowed due to coronavirus-related plant closures at some of va-Q-tec's customers. A further focus of the Supervisory Board meeting was the topic of financing and liquidity. To this end, the Management Board presented various initiatives relating to long-term and short-term financing, which are to be pursued in parallel. In addition, the investments in 2020 were discussed: the overview of investments by the Management Board showed that these were significantly below the original budget due to the reluctance to invest in view of the coronavirus pandemic, although at the same time further investments were being made in growth on a selective basis as opportunities arose. Further topics included the possible investment in ING3D GmbH and the capital increase at the already existing investment SUMTEQ GmbH, as well as the preparation of the Annual General Meeting.

In the **fourth meeting on 14 August 2020**, following the AGM, a convertible loan for SUMTEQ GmbH and various changes under company law at the level of SUMTEQ GmbH were discussed and approved. Furthermore, at this meeting, the Management Board also submitted a motion to acquire an interest in ING3D GmbH. The purpose of the company is the introduction of the “Mineral Direct Laser Sintering” (MDLD) manufacturing process for high-temperature applications, which was developed by ING3D GmbH and for which a patent application has been filed. At present, va-Q-tec AG and ING3D GmbH are already working together on various projects in the area of mobility and high temperature insulation. The Management Board identifies substantial revenue potential in various end markets for the company’s own products with 3D printed products of ING3D GmbH. The Management Board reported on the current status of the financing measures. Furthermore, the placement of a bond in Swiss francs on the Swiss capital market was discussed as a further financing alternative. It should be noted that this segment enjoys an impeccable reputation in Switzerland and also offered attractive financing conditions for va-Q-tec AG. In addition, the issuing bank had declared that it would issue an underwriting commitment for the basic volume of the transactions, which would provide va-Q-tec AG with a high level of transaction security, and investors with certainty regarding the company’s risk profile. Due to the death of Mr. Lamann, the Supervisory Board reappointed the Deputy Chair and rearranged the composition of the committees in an internal meeting.

At the fifth meeting on 24 September, Group business trends up until the end of August were analyzed and discussed intensively. All in all, the Group was well above the previous year’s level at the end of August, although at the same time behind the original plan due to Covid-19. The VIP business was most affected by Covid-19 in the first half of the year. However, at the time of the meeting, the main customer group of va-Q-tec AG, European refrigerator manufacturers, had again ordered significantly more. In addition, an important breakthrough in the VIP insulation area was achieved in a project with a Finnish manufacturer of hot water pipes, which the Head of Technology & Industry also reported on in the course of investment projects planned for this purpose. The pharmaceutical sector’s high share of revenues had a very positive effect on growth and resilience, as this sector was, and is, least affected by coronavirus restrictions, or even tends to benefit from them. As part of its comments on financing and liquidity, the Management Board reported on the due diligence process for the Swiss bond that had in the meantime been initiated together with Helvetische Bank. The Management Board had previously evaluated alternatives for medium-term financing in an extensive selection process since the beginning of the year on the basis of various criteria (term, interest rates, one-off costs, covenants, documentation requirements) and, following the outbreak of the Covid-19 pandemic, reanalyzed these alternatives on the basis of the change in overall conditions. Ultimately, the Swiss bond was selected because of its relatively simple documentation requirements, lower covenant requirements, faster implementation, and significantly lower overall costs compared to other capital market alternatives. The Management Board also reported on the planned medium and long-term strategy and the company’s associated long-term goals. The management’s vision is to develop va-Q-tec AG into the leading high-performance company in the thermal energy efficiency area (thermal packaging and insulation materials). From an organizational standpoint, business units are to be bundled even more strongly on the basis of the topics or megatrends of “thermal energy efficiency” and “TempChain logistics”. This is intended to facilitate knowledge transfer and to exploit synergies. At the same time, this is intended to improve communication both externally and internally and, in general, to increase effectiveness.

At the sixth meeting on 20 November, the Management Board and the management of the Business Development area reported on the potential organizational structure for a reorganization of business units in accordance with the megatrends of “thermal energy efficiency” and “TempChain logistics”. A further topic included current business trends as well as the planning status for 2021. In addition, the head of sales reported on the current target figures and gave an outlook for the following financial year. The distribution of coronavirus vaccines offered, and continues to offer, significant market opportunities for va-Q-tec AG. va-Q-tec systems also enable longer shipment of drugs or vaccines at constant (very) low temperatures. Such shipment temperatures are needed especially at the outset when the thermal stability of the vaccines is uncertain. Independently of this, va-Q-tec AG also has the opportunity to demonstrate itself as a reliable partner in the market for TempChain logistics in the very sensitive area of vaccine shipments, thereby gaining market share in the long term. Further topics of the meeting included liquidity, equity and financing as well as the current marketing phase (roadshow) for the CHF bond. Overall, discussions reflected very positive investor interest.

The **seventh and last meeting** of the plenary Supervisory Board in the 2020 financial year was held on **16 December 2020**. The central topic was the presentation and explanation of the target figures for 2021 as well as the medium-term planning by the Management Board and the management of va-Q-tec Ltd.(UK). Overall, the company is expected to continue its very positive performance in 2020 into 2021 and beyond. In 2021, coronavirus vaccine logistics are expected to make a significant contribution to revenue growth. Further target industries outside the healthcare sector also hold out the prospect of promising opportunities. After in-depth discussion, the Supervisory Board approved the Group budget including the investment budget for the 2021 financial year as well as the medium-term planning. A further topic of the meeting was the once again very pleasing share price performance in 2020, which is attributable to numerous and intensive IR activities in addition to great public attention in the context of coronavirus vaccine logistics.

Work in the Supervisory Board committees

The Supervisory Board has currently set up three committees in order to perform its duties efficiently. Specifically, these are the General, Audit and Nomination committees. These prepare resolutions and issues to be dealt with by the full Supervisory Board. To the extent permitted by law, the Supervisory Board's decision-making powers have been devolved to committees. The committees' chairs report to the Supervisory Board on the work of the committees at the following full Supervisory Board meeting. Due to the coronavirus pandemic and the reduction of the Supervisory Board to five members as a result of the death of the Deputy Chairman of the Supervisory Board, in 2020 the topics of the General Committee and the Nomination Committee were discussed directly as part of Supervisory Board meetings attended by all Supervisory Board members.

The following table shows the individual attendance of the individual members of the Supervisory Board at the meetings of both the full Supervisory Board and its Audit Committee:

Individualized disclosure of Supervisory Board members' attendance at meetings

(Number of meetings / participation in%)	Supervisory Board plenum		Audit Committee	
	Number	In %	Number	In %
Dr. Gerald Hommel Chair	7/7	100%	3/3	100%
Dr. Barbara Ooms-Gnauck (Deputy Chair since 14 August 2020)	7/7	100%	-	-
Uwe Lamann († 23.07.2020)	3/3	100%	-	-
Uwe Andreas Kraemer	7/7	100%	-	-
Winfried Klar	7/7	100%	3/3	100%
Dr. Eberhard Kroth	7/7	100%	3/3	100%

No conflicts of interest arose within the Supervisory Board during the reporting period.

Audit of the separate and consolidated financial statements

The consolidated financial statements of va-Q-tec AG were prepared on the basis of the International Financial Reporting Standards (IFRS), as applicable in the European Union, and the requirements of Section 315e (1) of the German Commercial Code (HGB). The auditors elected by the AGM, Rödl & Partner GmbH Wirtschaftsprüfungsgesellschaft, Steuerberatungsgesellschaft, Nuremberg, audited the separate financial statements of va-Q-tec AG as well as the consolidated financial statements, both for the financial year ending 31 December 2020, together with the respective management reports for va-Q-tec AG and the va-Q-tec Group, including the financial accounts, and in each case awarded them unqualified audit certificates on 25 March 2021. The auditors also assured themselves that the Management Board has established an internal control and risk management system appropriate in its implementation and design to provide early warning of developments jeopardizing the company as a going concern.

At the Audit Committee meeting on 25 March 2021 and at the Supervisory Board meeting on 26 March 2021, the Supervisory Board discussed with the auditors and examined in depth the financial statements for va-Q-tec AG and for the va-Q-tec Group, the Management Board's proposal for the application of the unappropriated net result, as well as the reports prepared by the auditor. The auditor participated in the consultations on the financial statements at this Supervisory Board meeting and informed the Supervisory Board of its audit findings and its findings concerning the internal control and risk management system.

The Supervisory Board concurs with the recommendation of its Audit Committee and approved the separate financial statements and management report as well as the consolidated financial statements and Group management report of va-Q-tec AG for the 2020 financial year. The separate financial statements of va-Q-tec AG have been adopted as a consequence. The Supervisory Board also concurs with the Management Board's proposal concerning the application of the unappropriated net result.

Thanks and outlook

The Supervisory Board remains convinced of the outstanding potential for success of va-Q-tec AG, and appreciates the trusting and open cooperation that it enjoys with the Management Board. On behalf of the Supervisory Board, I would like to thank all va-Q-tec AG employees for their extraordinary commitment in a year that was marked by special challenges for each and every one of them, both in their private and professional lives, due to the pandemic. We would like to thank you, our shareholders, for your confidence in the company, the management and our work.



Dr. Gerald Hommel
Chairman of the Supervisory Board of va-Q-tec AG



va-Q-tec - deployed in the fight against **CORONA**

va-Q-tec was founded exactly twenty years ago in Würzburg. The rental of thermal containers began in 2011, with boxes also being available for rent since 2016. These have since enabled the secure transportation of temperature-sensitive goods around the world. Today, on the occasion of the company's twentieth anniversary, the internationally operating company's secure transport solutions are more important than ever: as a contribution to the fight against the coronavirus pandemic.

va-Q-tec's special area: shipments for healthcare customers

Medicine helps – but only if it works. Stable temperatures during their logistics are a basic prerequisite for drug efficacy. A total of 70 of the 100 best-selling drugs worldwide need to be transported in an individual, precisely defined temperature range in order to ensure their effectiveness. The smallest temperature deviations during transport can destroy the valuable cargo irretrievably – with dramatic consequences, as urgently needed medicines are rendered ineffective.

For almost ten years, va-Q-tec's transport containers and boxes have been helping to avoid such and similar problems. Their interiors are clad with highly innovative vacuum insulation panels (VIPs), them to transport medical products for up to ten days at constant internal temperatures in a range between -70 °C and 25 °C. Here, the company not only ensures the effectiveness and safety of the valuable cargo, but also helps to protect the environment. Thanks to passive temperature control technology, not only is energy saved – but also weight. Weight that would otherwise have to go into the containers in the form of dry ice. va-Q-tec dispenses with this for a large part of its transport operations, thereby contributing to greater safety – as dry ice is solid carbon dioxide which, if the temperature is too warm, turns directly into a gas mixture that can cause suffocation – a particularly serious hazard in confined spaces such as aircraft, which is why it is only permitted in limited quantities in air traffic. Especially when transporting medicines at low temperatures, va-Q-tec boxes and containers are often the only safe solution.

Within a very short time, this expertise has made the company a transport partner in demand worldwide. In 2019, va-Q-tec already generated 68 % of its revenues from transportation solutions for the healthcare industry. In 2020, the share of revenues rose even further to a total of 74 %.

As a reliable partner to numerous international pharmaceutical companies and globally active logistics companies, va-Q-tec's high-tech boxes and containers fly around the world, taking their valuable cargo to where it is needed most urgently: from coronavirus test kits, which helped to tackle the first big wave at the outbreak of the virus, to vaccines against the viral disease, in order to bring the end of the pandemic closer one step at a time.

va-Q-tec's global TempChain service network, which meanwhile comprises around 40 stations worldwide, played a crucial role. This network provides customers with a seamless box and container rental service, and continues to grow: four more stations on three continents will be added in the first quarter of 2021 alone.



The success of these first vaccine shipments did not go unnoticed. In the fall, the Würzburg-based company signed a comprehensive agreement for global vaccine distribution with one of the world's largest pharmaceutical manufacturers. Several thousand thermal containers will

be provided for this manufacturer's entire campaign – it was probably the first and largest order for a vaccine transport in the thermal container industry ever, with a targeted sales volume in the high single-digit range in millions of euros.



However, these transport solutions from Würzburg could, and can, also help many other operators in the logistics chain for the coronavirus vaccine. As a consequence, va-Q-tec is meanwhile involved in more than 100 projects to distribute coronavirus vaccines. For example, the company has been supporting logistics company Kühne + Nagel since the winter in the distribution of Moderna's vaccine. Accordingly, it even reaches the farthest ends of the world, as seen from Europe. A va-Q-case was used to deliver the first vaccines for US forces in the Western Pacific in late 2020, to US soldiers at two air bases in Japan.

However, the boxes and containers are not only used globally, but also within Germany. Thanks to comprehensive agreements with the governments of several German states, almost every second German is administered a Covid-9 vaccine that was previously in a va-Q-tec transport solution.

A common goal: the end of the pandemic

va-Q-tec is very aware of its great responsibility in the fight against coronavirus – especially in light of the upcoming worldwide vaccine rollout. Thanks to high-tech "Made in Germany"

transport solutions and the company's many years of experience, vaccine transports can be carried out very securely with va-Q-tec's help. At the same time, va-Q-tec aims to continue to meet demand in order to ensure secure transports for as many vaccines as possible. For this reason, the comprehensive box and container fleet is being expanded continuously.

However, the Würzburg-based transport specialist is happy to share its knowledge of temperature-controlled logistics: in the digitally hosted TempChain Experts Dialog, the company provided comprehensive information on the challenges of global vaccine distribution together with prominent guests from the transport and healthcare sectors. Several hundred viewers from over 30 countries took part in the virtual event. The recording is available via va-Q-tec Virtual Forum on demand. And so, as a reliable partner for temperature-controlled supply chains, va-Q-tec would also like to make an important contribution in 2021, together with countless other players, to ensuring that this unprecedented crisis comes to an end as soon as possible.



va-Q-tec achieves climate-neutral production from 2020

When va-Q-tec was founded in 2001, the vision was to optimally harness thermal energy worldwide. In the meantime, this vision has become reality. The company is already contributing to this goal in many markets with the help of its innovative technology. Not only the products, but also a large number of in-house process optimizations and certified compensation measures ensure the best possible energy utilization, and thereby contribute to the worldwide reduction of CO₂ emissions. For 2020, va-Q-tec will be the first supplier of temperature-controlled packaging solutions as well as the producer of high-tech insulation materials to achieve climate neutrality at its production sites.

Thermal energy efficiency thanks to vacuum insulation

The key technology of va-Q-tec's vacuum insulation panels (VIPs) holds enormous potential for saving thermal energy. These are super-insulating insulating materials that the company produces in a wide variety of (3D) shapes, which can also be freely designed. These insulate ten times better than conventional insulation materials and are particularly suitable when maximum insulation is required despite limited space. Thanks to these excellent material

properties, VIPs are deployed in various areas, such as construction, refrigerators and freezers, various industrial applications, such as pipelines and hot water tanks, and in various vehicles on water, air and land, and consequently already contribute to thermal energy savings in many places. For example, the VIP annual production for installation in refrigerators alone saves the electricity generated annually by 120 large wind turbines.

Thermal energy efficiency in TempChains

In 2004, the idea of using the company's own VIPs to build high-performance thermal boxes and containers went into series production. At that time, the cornerstone was the emerging biotech industry, which increasingly required temperature-controlled transport solutions. Designed as such, va-Q-tec's high-tech insulated containers save a lot of energy thanks to their excellent temperature retention properties without any loss in performance. For example, when transporting temperature-sensitive goods, refrigeration units and other external energy sources can be dispensed with. Until the present day, conventional solutions require energy-intensive power generators or large quantities of dry ice in order to maintain even temperatures around -20 °C for a few days. For this purpose, va-Q-tec utilizes temperature storage elements that can be used many times and are available for different ranges between -70 °C and 25 °C. Only for temperatures below -60 °C do the thermal containers and boxes require small quantities of dry ice.

Thermal energy efficiency thanks to process optimization

However, va-Q-tec not only saves thermal energy with the help of its products, the ongoing optimization of manufacturing processes in terms of energy efficiency also forms a focus of its sustainability strategy. Certification by the German Institute for Sustainability, which was already awarded in March 2020, showed that more than 1,700 t of CO₂ – and thereby most of the emissions generated during product production – are avoided by measures and process optimizations already implemented by va-Q-tec. The energy and heat consumed at the company's headquarters in Würzburg is largely supplied by an in-house combined heat and power plant. In a first step, the thermal energy that is generated is used as production heat. The remaining heat is used for air conditioning in rooms – in winter for heating, and in summer for room cooling through the use of special cold-heat transformation. The waste heat from production is also fed back into this energy

cycle in order to make the best possible use of the heat. Optimal insulation of the power plant and other heating and cooling lines with VIPs produced in-house as super insulation additionally ensures that the valuable thermal energy is not lost. Through the combined heat and power system, the company saved emissions amounting to 371t CO₂ compared to the previous year. Renewable energy sources are also used at the Kölleda plant through a large photovoltaic system, which has reduced emissions by 56t of CO₂ compared to 2019.

Permanent optimization is also ensured by the TÜV-certified energy management system (ISO 50001:2018) implemented in 2013 and the environmental management system (ISO 14001:2015) that has been performed regularly since 2014. Annual monitoring audits ensure the effectiveness of the certificates and form the basis for further optimization.

Sponsoring of certified neutralization projects

To offset the remaining, smaller portion of emissions for 2020, the company is investing in two special climate protection projects: one of them is located in the Rhön region, not far from the company's headquarters in Würzburg. In this biosphere reserve, moors are being renaturalized, and existing forests reforested and maintained with the help of the company's investments. The second project is located in Uruguay, where va-Q-tec has a foreign branch office in the capital Montevideo that serves Latin America. In this South American country, former cattle pastures are being reforested in order to continuously restore the original forest cover. In both cases, planning and implementation are strictly supervised and implemented by regional forestry offices.



Energy savings:

Savings from
421t CO₂



Reforestation in Uruguay:

approx. 400 ha area
newly planted



Optimised logistic processes:

Savings from
200 t CO₂



Long-standing waste prevention:

15 % less rubbish
since 2016

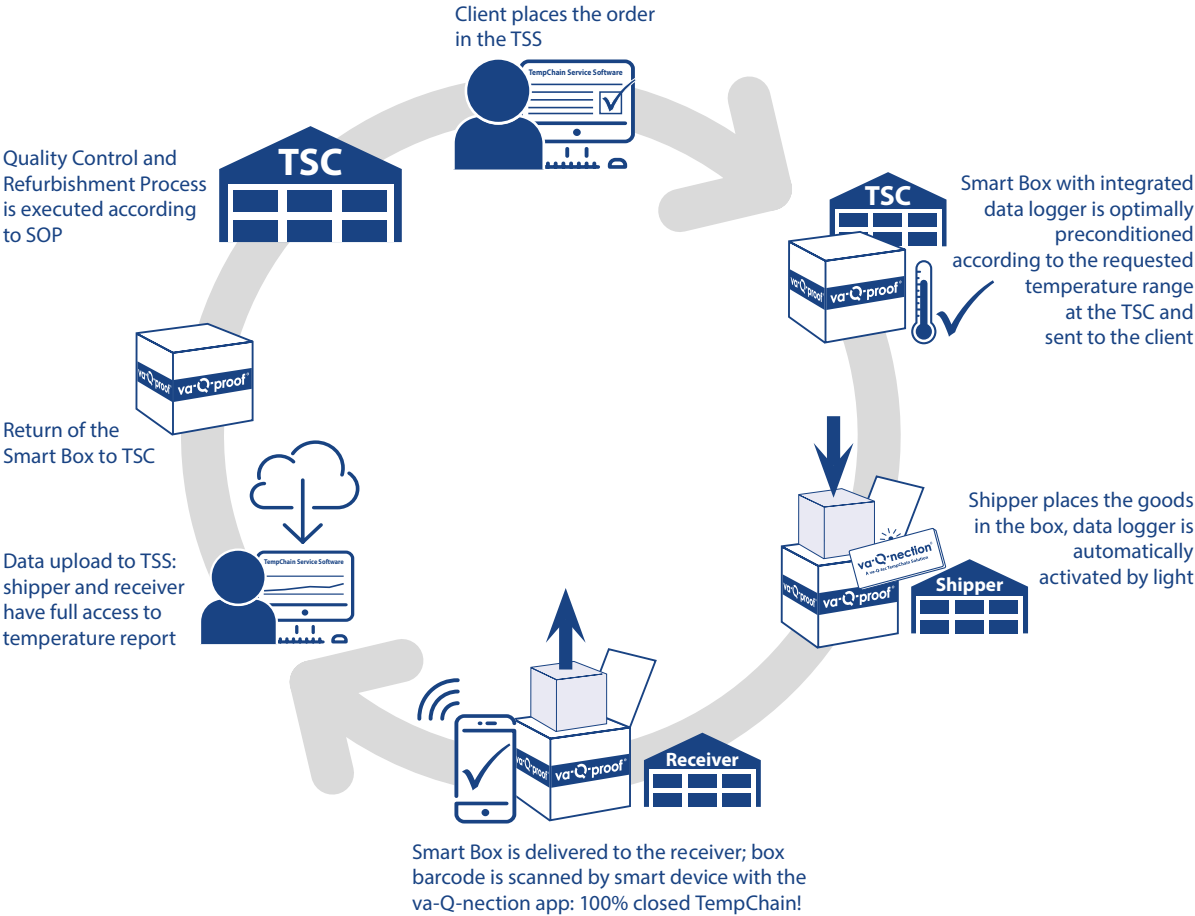


TempChain 4.0: Smart boxes and networked containers

va-Q-tec's innovative thermal containers and boxes prove persuasive not only because of the excellent insulation they offer thanks to the use of vacuum insulation panels – which enable temperatures inside the containers to be maintained for several days, including at extreme outside temperatures – the containers are also smart: the use of modern information and communication technologies enables customers to monitor the entire TempChain more rapidly and more precisely during transport. All this forms part of va-Q-tec's innovative TempChain 4.0 services.

The central element of these digital services is the TempChain Service Software, an online platform on which the customer can centrally control the entire logistics process – from ordering the thermal boxes through to picking them up at the end of the order – and monitoring them in real time. The advantage here is that if the innovative thermal containers are handled incorrectly or other malfunctions of the TempChain are imminent, it is possible to respond more quickly to ensure the consistency of the temperature chain, including during transport. Finally, thanks to the platform on which the necessary data is available, the customer can independently monitor the transport conditions and, if necessary, initiate changes immediately. This not only saves valuable time, but also costs associated with any transport errors.

Many goods must be transported within a certain constant temperature range to ensure quality, effectiveness and usability. Among other things, this is also required by the European Commission's stringent GDP regulations¹. This serves to maintain the quality and integrity of medical products and to ensure controlling of the logistics chain. This applies, for example, not only to vaccines, but also to materials used in clinical or scientific studies. During transport, these may only be exposed to stable (temperature) conditions, in order to avoid the distortion of test results, for example. The last mile, i.e. delivery from the last distribution point to scientific or medical facilities, is particularly critical here. Delivery times are short, but a lot of transports occur under very different conditions. With its smart high-tech insulated containers, va-Q-tec offers a solution to this problem. Finally, they make the required logging much easier.



¹ GDP: Good Distribution Practice.

To make this possible, the smart thermal boxes are equipped with a Bluetooth data logger. This reacts to exposure to light: when the customer opens the box at the beginning of the transport, the data logger is automatically activated. This not only measures the internal temperature and, based on this, also the external temperature of the container, but additionally registers other factors such as humidity and brightness. At the end of the order, customer can then view this data in a special app on their phones, or, if desired, in the data cloud. BlockChain

technology contributes to data security by enabling decentralized processing and storage of data on different servers and tracking and documenting any changes. The result of these services is that customers of va-Q-tec can inform themselves about the transport conditions of the consignment independently and when required – without having to make any compromises in terms of data security.



This TempChain 4.0 concept is a prime example of the Internet of Things (IoT), which refers to the independent networking and communication of objects with each other, and which has been becoming increasingly a reality for some time. va-Q-tec strives to further advance this networking and to exploit its advantages in order to develop new services. In the future, for example, a va-Q-tainer that stands unplanned for too long at over 50 degrees Celsius in Dubai could independently initiate the search for of an alternative, better location. Only then, when such a location is actually available, would human beings have to intervene in the process in order to deliver the container to the respective location.

However, not only customers, but also va-Q-tec itself benefits from this data, which is evaluated with the help of artificial intelligence (AI). For example, the maintenance of boxes and containers can be made more flexible and accurate: with the collected data, the technical condition of each individual container can be better assessed in advance. Maintenance only takes place when it is necessary – and not any sooner or later. Not only does this saves resources for unnecessary repairs but also ensures that containers are not taken out of service unnecessarily. Furthermore, thanks to the data, va-Q-tec can, for example, make more accurate forecasts about the availability of its fleet – the basis for the development of further services, which in turn benefit the customers.

1.3 CORPORATE GOVERNANCE / STATEMENT IN ACCORDANCE WITH SECTIONS 289F AND 315D HGB

1.3.1 Statement of conformity with the German Corporate Governance Code

The Management and Supervisory boards of va-Q-tec AG have approved the following statement pursuant to Section 161 of the German Stock Corporation Act (AktG) as of 26/03/2021:

Statement by the Management and Supervisory boards of va-Q-tec AG on the recommendations of the "Government Commission German Corporate Governance Code" pursuant to Section 161 AktG

Since issuing the last declaration of compliance on 30 January 2021, va-Q-tec AG has complied with the recommendations of the "Government Commission on the German Corporate Governance Code" published by the German Federal Ministry of Justice and Consumer Protection (BMJZ) in the official section of the Federal Gazette in the version of 16 December 2019 ("DCGK 2020") with the deviations listed therein and will comply in the future with the exception of the deviations explained below:

- a. Recommendation G.1, indent 1, to determine in the Management Board compensation scheme how the target total compensation is to be determined for the individual Management Board members, and what amount the total compensation may not exceed (maximum compensation),
- b. Recommendation G.1, indent 2, to determine in the Management Board compensation scheme the relative share of fixed compensation on the one hand and short-term variable and long-term variable compensation components on the other in the target total compensation,
- c. Recommendation G.1, indent 3, insofar as it recommends determining in the Management Board compensation scheme which non-financial performance criteria are decisive for granting the variable compensation components, because the current Management Board compensation scheme does not contain any non-financial performance criteria,

d. Recommendation G.3, sentence 1, insofar as it recommends that the peer group of other companies used by the Supervisory Board to assess the customary nature of the specific total compensation of the members of the Management Board in comparison with other companies be disclosed,

e. Recommendation G.4 that, in order to assess customary practice within the company, the ratio of the compensation of the Management Board to the compensation of senior management and the workforce as a whole should be taken into account, and that this should also be reflected in the change over time,

f. Recommendation G.11, sentence 2, to be able to withhold or reclaim variable compensation in justified cases, and

g. Recommendation G.12, insofar as it recommends that, in the event of the termination of a Management Board contract, the payment of outstanding variable compensation components attributable to the period up to the termination of the contract should be made in accordance with the holding periods specified in the contract.

In 2018, the Supervisory Board approved a new Management Board compensation scheme, which took into account all the relevant recommendations of the DCGK 2017. With the reform of the German Corporate Governance Code ("DCGK 2020"), the recommendations on the compensation of the Management Board were modified significantly, with the result that the current compensation scheme does not comply with the new recommendations in some cases. The Supervisory Board is currently revising the compensation scheme with regard to the new requirements under stock corporation law for the compensation scheme for the Management Board, and is also examining whether and to what extent the new recommendations of the Code on Management Board compensation should be taken into account. No new contracts or extensions of current service contracts with members of the Management Board have been agreed since the DCGK 2020 came into force; furthermore, current service contracts with members of the Management Board are subject to grandfathering.

1.3.2 Disclosures relevant to corporate governance practices

As a German stock corporation under German law, va-Q-tec AG has three executive bodies – the Annual General Meeting, the Supervisory Board and the Management Board. Duties and powers arise, in particular, from the statutory regulations and the company's bylaws. A Shareholders' General Meeting is held at least once a year. At the Ordinary Annual General Meeting, the shareholders regularly pass resolutions on the appropriation of the unappropriated net profit, the discharge of the Management and Supervisory boards, and the election of the auditor.

All shareholders who register in good time are entitled to attend the Annual General Meeting. Shareholders who are unable to attend in person have the option of having their voting rights be exercised by a bank, a shareholders' association, the proxies appointed by va-Q-tec AG who are bound by instructions, or another proxy of their choice.

The Management and Supervisory boards set great store by an open corporate and management culture. Positive interaction within the company – a "good working climate" – is very important for the company's business and financial performance, and for satisfied customers, employees, partners and shareholders. This type of climate of interaction and open internal communication fosters awareness of, and compliance with, statutory regulations, ethical standards, as well as economic and social principles.

In order to ensure ethical behavior, va-Q-tec AG has established corresponding standards in a Groupwide corporate compliance policy. Core elements include, firstly, the basic values it codifies such as personal integrity, respect for diversity, and compliance in the context of business life. The Corporate Compliance Policy also sets out – in Group guidelines – instructions for business behavior in any ethically dubious situations. The compliance program is translated into practice and further developed in collaboration between the Management and Supervisory boards.

Apart from the exceptions specified and explained in the conformity statement, va-Q-tec AG complies with all statutory requirements in terms of good corporate governance as well as the recommendations of the German Corporate Governance Code. In the context of the capital market listing, the Management and Supervisory boards inform the employees on the relevant issues of capital market law, including with related documents

1.3.3 Composition and working methodology of the Management Board

The Management Board of va-Q-tec AG manages the company's business at its own responsibility. It is bound by the company's interest in this context, and is obligated to enhance the company's sustainable value. It develops the company's strategic orientation, coordinates it with the company's Supervisory Board, and ensures that it is implemented. The Management Board discusses the current status of strategy implementation at regular intervals with the Management Board. It also caters for appropriate risk management and risk controlling within the company. The Management Board members perform their tasks according to statutory provisions, the company's bylaws, AGM and Supervisory Board resolutions, their respective employment contracts as well as the rules of business procedure for the Management Board, and work to ensure that the company and its subsidiaries also comply with them.

The Management Board works together closely and on a basis of trust with the Management Board for the company's benefit. The Management and Supervisory boards' joint objective is to implement the growth strategy and exploit the various application possibilities on offer for the Group's technologies. The Supervisory Board appoints the Management Board members, removes them from office and determines the allocation of their responsibilities. It can also appoint a Management Board Chair (CEO).

The Supervisory Board has set an age limit for the Management Board members in accordance with the recommendation of the DCGK. Management Board members should not be older than 65 at the time of their appointment.

The Management Board of va-Q-tec AG comprises two members as of 31 December 2020:

The Management Board is jointly responsible for managing the company's business for the Group's benefit. The Management Board members are individually responsible for the areas allocated to them. The business allocation

plan allocates the tasks to the individual Management Board members as follows as of 31 December 2020:

Name	Function	Management Board member since	Contract end
Dr. Joachim Kuhn	Chief Executive Officer, Management Board Chairman	01/04/2001	31/12/2023
Stefan Döhmen	Chief Financial Officer,	01/07/2017	31/12/2022

Dr. Joachim Kuhn: Chief Executive Officer – CEO:

- Production
- Sales and marketing
- Technology
- Personnel

Stefan Döhmen: Chief Financial Officer – CFO:

- Finance
- Financial communication (IR)
- Purchasing
- IT
- Legal

Besides his activity on the Management Board of va-Q-tec AG, Dr. Kuhn is a member of the Advisory Board of SUMTEQ GmbH, a company in which va-Q-tec AG holds a minority interest. Dr. Kuhn is also Chairman of the Board of Trustees of ZAE Bayern, the research institute from which va-Q-tec AG originated. The Management Board members do not engage in other secondary activities.

The Supervisory Board last updated and approved the rules of business procedure for the Management Board on 30 April 2019. These include, in particular, the regulations for the working methodology for the Management Board and the distribution of responsibilities between the Management Board members, as well as their collaboration with the Supervisory Board. They define a set of transactions requiring mandatory approval by the Supervisory Board. All Management Board resolutions are passed with a simple majority of the votes unless the law requires another majority. Management Board meetings are held regularly several times per month. The Management Board also remains in close contact between its regular meetings, both with each other and with the Supervisory Board.

1.3.4 Composition and working methodology of the Supervisory Board and its committees

Supervisory Board

The Supervisory Board of va-Q-tec AG regularly consults with and supervises the Management Board in its management of the company. The Supervisory Board performs its activities according to statutory provisions, the company's bylaws, and its rules of business procedure. The recommendations of the German Corporate Governance Code concerning the Supervisory Board are complied with, unless stated otherwise in the statement by the Management and Supervisory boards pursuant to Section 161 of the German Stock Corporation Act (AktG) as published on the company's website. In performing its tasks, it works together closely and on a trusting basis with the Management Board for the company's benefit, and appoints and recalls from office the Management Board members. Moreover, it also pays attention to diversity in the Management Board's composition, especially striving for an appropriate inclusion of women in this context. The members of the Management Board should complement each other in terms of their background, professional experience and expertise, so that the board can draw on the widest possible range of experience and specialist knowledge. Together with the Management Board, it caters for long-term corporate planning.

Supervisory Board resolutions are generally passed at its meetings. They can also be passed without convening a meeting, and voting can also occur verbally, in writing, by telephone, fax or email, if so ordered by the Supervisory Board Chair and to the extent that no Supervisory Board member immediately objects to such a procedure. Supervisory Board resolutions are passed with simple majorities, unless prescribed otherwise by law or the company's bylaws.

All Supervisory Board members are obligated to pursue the company's interests. In their decisions, the Supervisory Board members cannot pursue personal interests, or exploit the company's business opportunities for themselves, for related natural or legal persons, or for another institution or association in which, or for which, they act. All Supervisory Board members must immediately disclose to the Supervisory Board conflicts of interest, especially those arising on the basis of a consultancy or board function at customers, suppliers, lenders or other third parties.

Pursuant to Section 2 (1) of the rules of business procedure for the Supervisory Board, the members in their entirety should possess the knowledge, capabilities and specialist experience to perform their tasks properly. Pursuant to Section 100 (5) AktG and Section 324 (2) HGB, at least one member of the Supervisory Board must also have expertise in the accounting or auditing areas. The Supervisory Board sets specific targets for its composition, taking into consideration the recommendations of the German Corporate Governance Code.

The report of the Supervisory Board provides details of the work of this body. The curricula vitae of the members of the Supervisory Board are available on the company's website at

<https://va-q-tec.com/unternehmen/management/>. Information on the compensation of the members of the Supervisory Board can be found in the compensation report.

In the 2020 financial year, the Supervisory Board comprised the following members:

Name	Profession	Year of birth	Member since	Member of statutory supervisory boards of comparable domestic or foreign companies / Other mandates
Dr. Gerald Hommel Chair (appointed until 2023)	Self-employed pharmaceutical entrepreneur and Managing Partner of pharमारिसानो Arzneimittel GmbH	1959	2014	-
Dr. Barbara Ooms-Gnauck deputy Chair (appointed until 2023)	Lawyer and specialist in administrative law at Gnauck Rechtsanwälte GbR Co-shareholder of Gnauck Rechtsanwälte GbR	1957	2014	-
Uwe Lamann († 23.07.2020) Deputy Chair	-	1949	2014 – 2020	Member of the Advisory Board of Baumüller Nürnberg GmbH
Uwe Andreas Krämer (appointed until 2023)	Group CFO of enterprise software company Scandit AG, Zürich	1978	2015	-
Winfried Klar (appointed until 2023)	Management consultant, former auditor, tax advisor and CFO	1954	2013	-
Dr. Eberhard Kroth (appointed until 2023)	Managing Shareholder of RoPro4.0 GmbH	1956	2013	-

In the interests of complementary collaboration, the Supervisory Board strives for sufficient diversity with regard to gender, internationality and different professional backgrounds, expertise and experience.

Taking into account the recommendations of the German Corporate Governance Code (DCGK), the Supervisory Board has objectives for its composition, including a competency profile for the entire body, which are presented in the section "Objectives for composition, competency profile and diversity concept for the Supervisory Board".

Composition and working methodology of the Supervisory Board committees

The Supervisory Board of va-Q-tec AG currently has three committees: an Audit Committee, a Nomination Committee and a General Committee.

The **Audit Committee** consists of the following members until the end of their respective period of office:

- Winfried Klar: Chair
- Dr. Gerald Hommel: Deputy Chair
- Dr. Eberhard Kroth: Member

The Audit Committee concerns itself especially with questions relating to financial accounting and supervising the financial accounting process, the efficacy of the internal control system, the risk management system, compliance and the internal audit system, as well as the audit of the financial statements. The latter relates especially to the auditor's independence, the services additionally rendered by the auditor, the awarding of the audit mandate to the auditor, determining the audit focus areas and agreeing the audit fee.

The **Nomination Committee** consists of the following members until the end of the respective period of:

- Dr. Gerald Hommel: Chair
- Uwe Lamann: Deputy Chair¹
(until 23 July 2020)
- Uwe Andreas Kraemer: Deputy Chair
(since 14 August 2020, previously member)
- Dr. Barbara Ooms-Gnauck: Member

The Nomination Committee proposes suitable candidates to the Supervisory Board for its election proposals to the AGM.

The **General Committee** consists of the following members until the end of their respective period of office

- Dr. Gerald Hommel: Chair
- Uwe Lamann: Deputy Chair²
(until 23 July 2020)
- Dr. Barbara Ooms-Gnauck: Deputy Chair
(since 14 August 2020, previously member)
- Dr. Eberhard Kroth: Member (since 14 August 2020)

The Supervisory Board Chair chairs the General Committee. The General Committee consults on key corporate governance topics and prepares Supervisory Board resolutions. Along with long-term successor planning for the Management Board, the General Committee prepares Supervisory Board resolutions especially concerning the following matters:

- Appointment and removal from office of Management Board members as well as appointment of a Management Board Chair (CEO)
- Concluding, amending and terminating appointment contracts with Management Board members
- Structure of the Management Board compensation scheme including key contractual elements and total compensation of the individual Management Board members.

^{1,2} Until his death on 23 July 2020. Dr. Barbara Ooms-Gnauck assumes the role of Deputy Chair of the Supervisory Board. Dr. Eberhard Kroth moves up to the General Committee. The Nomination Committee is reduced to three members.

Self-assessment of the work of the Supervisory Board and its committees

The Supervisory Board and its committees regularly review, either internally or with the assistance of external advisors, how effectively the Supervisory Board as a whole, and its committees, perform their duties.

Following the 2020 financial year, the Supervisory Board of va-Q-tec AG carried out an internal self-audit immediately for the 2020 financial year. To this end, each member of the Supervisory Board answered a comprehensive catalog of questions and critically assessed his or her own activities. As a result of the evaluation of the self-assessment, it should be noted that the Supervisory Board is characterized not only by harmonious cooperation among the individual members and with the Management Board, but also by a high and qualified level of commitment and specific expertise on the part of each individual member. No fundamental need for change has emerged.

Overall, following in-depth discussion of the result of the internal self-audit, the Supervisory Board is convinced that it performed its duties responsibly and efficiently in the 2020 financial year.

1.3.5 Targets for the proportion of women on the Management Board and in the two management levels below the Management Board; target for the proportion of women on the Supervisory Board

Due to the small number of Management Board members, the Supervisory Board has set the ratio of proportion of women on the Management Board at 0%.

A target of 10% women was set for the first level below the Management Board. As of 31 December 2020, the proportion of women at the first management level below the Management Board is 15%.

For itself, the Supervisory Board set a proportion of women at 16.66%, corresponding to one in six members. This quota is met with the current composition of the Supervisory Board.

1.3.6 Diversity concept for the Management Board and long-term succession planning

In making proposals for the appointment of members of the Management Board, the Supervisory Board is guided by the objective of ensuring that the composition of the Management Board is as diverse and complementary as possible. The aim is to ensure that the Management Board as a whole has all the knowledge and experience

that is considered essential in light of va-Q-tec's activities. When selecting members of the Management Board, the Supervisory Board considers their personal suitability, integrity, convincing leadership qualities, international experience, professional qualifications for the position to be assumed, past performance, knowledge of the company, and ability to adapt business models and processes in a changing world. The aspect of diversity is an important selection criterion when filling Management Board positions, including with regard to aspects such as age, gender, and educational and professional background. When selecting members of the Management Board, the Supervisory Board consequently also takes the following aspects into account, in particular:

- In addition to the specific technical knowledge as well as management and leadership experience required for the respective task, the Management Board members should cover as broad a spectrum of knowledge and experience as possible.
- With a view to the company's international orientation, the Management Board's composition should take into account internationality in the sense of different cultural backgrounds or international experience (for example, extended professional experience abroad relevant to va-Q-tec, or supervision of foreign business activities).
- The Management Board as a whole should have experience from the business areas that are important for va-Q-tec.

The Management Board as a whole should have many years of experience in the areas of technology (including information technology and digitalization), transformation processes, entrepreneurship, research and development, purchasing, production and sales, finance, as well as law (including compliance) and human resources.

It is considered helpful to have a variety of age groups represented on the Management Board.

The crucial factor in deciding whether to fill a specific position on the Management Board is always the interests of the company, taking into account all the circumstances of the individual case.

Implementation of the diversity concept for the Management Board

The diversity concept is implemented by the Supervisory Board as part of the procedure for appointing Management Board members. When selecting candidates, the Supervisory Board takes into account the requirements defined in the diversity concept for the Management Board.

In the period under review, no decisions were made regarding the appointment of members of the Management Board. In future, the diversity concept will be given due consideration by the Supervisory Board as part of the structured appointment process. In the case of reappointments, previous performance in office stands at the forefront of the decision-making process.

Long-term succession planning for the Management Board

Personnel issues such as long-term succession planning are prepared by the General Committee, and discussed by the Supervisory Board, including together with the Management Board. Succession planning takes into account the term of current Management Board contracts. The Supervisory Board draws up a candidate profile for open positions on the Management Board. The Supervisory Board ensures that the knowledge, skills and experience of all members of the Management Board differ and are balanced. Suitable candidates are invited for interviews on the basis of the specific requirements and stated criteria of the diversity concept. The recommendation for the resolution is prepared by the General Committee and submitted to the full Supervisory Board. In addition, the Supervisory Board has itself be regularly informed about succession planning for the level below the Management Board, and advises the Management Board in this regard. The appointment of the holders of certain management functions at the first level below the Management Board requires the approval of the Supervisory Board.

1.3.7 Targets for the composition, competency profile and diversity concept of the Supervisory Board

Competency profile

The candidates proposed for election to the Supervisory Board should, on the basis of their knowledge, skills and experience, be able to perform the duties of a Supervisory Board member at an internationally active company.

Particular attention is to be paid to the personality, integrity, willingness to perform, and professionalism of the persons proposed for election. The aim is to ensure that the Supervisory Board as a whole has all the knowledge and experience that is considered essential in light of va-Q-tec's activities. This includes, but is not limited to, skills and experience in the areas of healthcare, purchasing, manufacturing, finance, and legal (including compliance). In addition, the Supervisory Board should have knowledge and experience from the business areas important to va-Q-tec. In particular, the Supervisory Board should also include persons who have management experience in a major international company as a result of holding an executive position, or as a member of a supervisory board or comparable body.

At least one member of the Supervisory Board must have expertise in the areas of accounting or auditing. The chair of the Audit Committee should have special knowledge and experience in the application of accounting principles and internal control procedures, and be familiar with the auditing of financial statements. In the event of an upcoming new appointment, a review should be undertaken as to which of the desirable skills on the Supervisory Board are to be strengthened.

Internationality

In light of the company's international orientation, care should be taken to ensure that the Supervisory Board includes a sufficient number of members with many years of international experience.

Diversity

Sufficient diversity should be ensured in the Supervisory Board's composition. In addition to appropriate consideration of women, this also includes diversity in terms of cultural origin, religion and ethnic background, as well as differences in professional backgrounds, experience and ways of thinking. When considering potential candidates for Supervisory Board positions, the aspect of diversity should be given appropriate consideration at an early stage in the selection process.

Independence

According to the German Corporate Governance Code (DCGK), more than half of the shareholder representatives should be independent of the company and the Management Board. A Supervisory Board member is independent of the company and its Management Board if he or she has no

personal or business relationship with the company or its Management Board that could constitute a material and not merely temporary conflict of interest. When assessing the independence of its members from the company and from the Management Board, the shareholder side must, in particular, take into account whether the Supervisory Board member himself or herself, or a close family member of the Supervisory Board member:

- was a member of the company's Management Board in the two years preceding the appointment,
- currently or in the year up to his or her appointment, directly or as a shareholder or in a responsible function of a company outside the Group, maintains or has maintained a material business relationship with the company or a company dependent upon it (e.g. as a customer, supplier, lender or consultant),
- is a close family member of a member of the Management Board or,
- has been a member of the Supervisory Board for more than 12 years

In the Supervisory Board's opinion, all members of the Supervisory Board are currently independent of the company and its Management Board. Two members of the Supervisory Board act in an advisory capacity for the company. The Supervisory Board is of the opinion that none of these relationships is to be classified as material.

Time availability

Each member of the Supervisory Board must ensure that he or she has sufficient time to perform his or her duties. The statutory restrictions on mandates and the upper limits recommended by the DCGK are taken into account. According to the DCGK, a Supervisory Board member who is not a member of the management board of a listed company should not hold more than a total of five supervisory board mandates at listed companies outside the group, or comparable functions, whereby a supervisory board chair position counts twice. Any person who is a member of the management board of such a company should not hold more than two supervisory board mandates in listed companies outside the group, or comparable functions, and should not chair the supervisory board of a listed company outside the group. With regard to the exercise of the mandate at va-Q-tec, it must be taken into account that

- at least four, albeit as a rule six, ordinary meetings of the Supervisory Board are held each year, each of which requires appropriate preparation,
- sufficient time must be allowed for the audit of the annual and consolidated financial statement documents

- depending on membership of one or more of the three Supervisory Board committees currently in existence, additional time is required to attend and adequately prepare for committee meetings; this applies in particular to the Audit Committee,
- additional extraordinary meetings of the Supervisory Board or of a committee may be necessary in order to deal with special issues

Age limit and length of membership

In compliance with the age limit set by the Supervisory Board in its rules of procedure, the term of office of a Supervisory Board member should generally end at the close of the Annual General Meeting following the Supervisory Board member's 75th birthday.

Implementation of objectives for composition including competency profile and diversity concept; independent members on the Supervisory Board

The Supervisory Board takes into account the objectives for the composition and the requirements set out in the diversity concept as part of the selection process and the nomination of candidates for the Supervisory Board. In its current composition, the Supervisory Board meets the composition targets and fulfils the competency profile and diversity concept. The members of the Supervisory Board have the professional and personal qualifications deemed necessary. In their entirety, they are familiar with the sector in which the company operates and have the knowledge, skills and experience essential to va-Q-tec. A considerable number of Supervisory Board members are internationally active or have many years of international experience. In the 2020 financial year, the Supervisory Board included one female member. The Supervisory Board also includes an appropriate number of independent members. In the Supervisory Board's opinion, all members of the Supervisory Board are currently independent of the company and its Management Board. No controlling shareholder exists at present.

Interests held by the Management and Supervisory boards

As of the end of the 2020 financial year, the members of the Management Board, founders and members of the Supervisory Board held the following direct interests in the share capital of va-Q-tec AG:

Shareholder	Number of shares
CEO and founding families	3,496,044
CFO and Supervisory Board	58,281



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2 GROUP MANAGEMENT REPORT

2.1 BASIS OF THE VA-Q-TEC GROUP

2.1.1 Business model, market and strategic orientation

2.1.1.1 Business model and market

va-Q-tec is a leading global supplier of highly efficient products and complete solutions in the thermal insulation area. va-Q-tec offers customers from a wide range of industries high-performance insulation solutions that enable them to significantly increase their energy efficiency. The products and services offered by va-Q-tec in the Group's Products, Systems and Services divisions are deployed in thermology, the refrigerator and food industries, in technical applications such as hot-water tanks, the construction industry and in the mobility sector.

In its **"Products" division**, the company develops, produces and markets highly efficient, thin vacuum insulation panels (VIPs) as well as phase change materials (PCMs) for reliable and energy-efficient temperature controlling. VIPs are high-performance insulation panels between 5 mm and 50 mm in diameter that are particularly suited to space-saving and energy-efficient thermal insulation. PCMs are cold and heat storage materials that absorb and store thermal energy. Various temperature ranges can be addressed through utilizing various storage materials such as paraffins and salt solutions.

In its **"Systems" division**, va-Q-tec manufactures passive thermal packaging, containers and boxes through combining VIPs and PCMs, which maintain constant defined temperature ranges for up to 200 hours without recourse to external energy.

In its **"Services" division (Serviced Rental)**, va-Q-tec – within a global partner network – operates a fleet of rental containers and boxes meeting demanding thermal protection standards in order to implement temperature-sensitive logistics chains. Since 2011 the subsidiary in the UK has been operating a fleet of rental containers produced in-house, with which temperature-sensitive shipments can be carried out more cost-efficiently and securely compared to actively refrigerated containers. For this purpose va-Q-tec has built up a comprehensive global partner network consisting of airlines, forwarders and service partners, such as Lufthansa, IAG, Turkish Cargo and SWISS.

Since 2015, va-Q-tec AG has also been operating a business for thermal shipment boxes the company produces itself. Furthermore, va-Q-tec provides accompanying services in the area of preconditioning, preparation and shipment preparation of thermal packaging systems for well-known customers such as Kühne & Nagel and Swiss Post. Such integrated and rental-based shipment solutions ("TempChain as a service") from a single source are increasingly in demand from the healthcare industry.

Moreover, va-Q-tec offers consulting services in the thermal insulation area, for example in order to assign technical devices to higher energy efficiency classes by means of more efficient insulation.

In 2020, the **"Healthcare and Logistics"** target market again accounted for the largest share of revenues, at around 74%. Revenue from this target market is generated in the two divisions **"Systems"** and **"Services"** ("Temperature Controlled Supply Chain"). va-Q-tec thermal packaging is primarily used as a high-performance solution for a secure, reliable and uninterrupted temperature chain for the global healthcare industry. The thermal packaging of va-Q-tec enables the shipment and intermediate storage of investigational medicinal products and clinical samples, drugs, vaccines and other pharmaceutical and biotechnological products of all kinds, food, as well as electronic and optical devices. For example, smaller thermal packages from va-Q-tec have been used to ship urine and blood samples in connection with doping tests at major international sporting events as well as coronavirus test kits. Thermal packaging can also be used outside the healthcare sector, for example for the shipment of valuable and sensitive works of art, and archaeological finds.

In the Products business area, customers from the **following** market segments are addressed under the key concept of Thermal Energy Efficiency:

- Appliances and Food, e.g. insulation of refrigeration/freezing equipment and food containers
- Technics and Industry, e.g. insulating water boilers, pipelines, laboratory equipment and ultra-low temperature refrigeration units
- Building, e.g. building insulation (façades, roofs, floors)
- Mobility, e.g. insulation in refrigeration trucks, cars, trains and aircraft

In the Products business area, va-Q-tec serves various industries, of which the largest share is in the Appliances & Food (refrigeration and air conditioning equipment as well as food).

In the application areas, all va-Q-tec products are subject to high demands on the performance and service life of the thermal insulation, usually with very limited installation space.

Growth potentials in the Healthcare and Logistics target market arise from the increasing globalization of clinical research and pharmaceutical production. At the same time, demand for temperature-sensitive biotech drugs is rising constantly. Demands made of product safety (“good distribution practice of medicinal products for human use” – GDP) are becoming increasingly more stringent. The coronavirus crisis also underscores the importance of temperature-controlled, secure transport chains.

va-Q-tec is well represented in attractive, structurally growing markets. The long-term growth driver is the topic of thermal energy efficiency: global efforts to improve energy efficiency in all areas of life and production against the backdrop of advancing climate change are likely to strengthen demand for energy-efficient products, systems and services from va-Q-tec. In the Management Board’s opinion, this is particularly true in target markets that – from va-Q-tec’s perspective – are still small today, such as construction, mobility, and technology and industry. The European “Green Deal” and the pricing of CO₂ emissions agreed in the course of the climate protection programs will also lead to higher demand for good insulation in various sectors, such as the construction industry. The use of VIPs in such sectors can save valuable space, especially in densely populated areas. As energy efficiency requirements in industry are constantly increasing and the error tolerances are diminishing, an ever greater number of production components are also becoming temperature-sensitive, or need to be better insulated. This opens up further application possibilities for va-Q-tec, especially in the high temperature range. Further current examples include: laboratory equipment, piping systems, hot water tanks and boilers, and electronic equipment.

2.1.1.2 Strategic orientation

va-Q-tec operates in a very dynamic, innovation-driven and global market environment. Given the aforementioned trends in the target markets, va-Q-tec has defined three strategic focus topics in order to exploit potential in the short term and to continue on its growth path in the medium and long term. The aim is to expand the company’s position as one of the world’s leading suppliers of highly efficient products and solutions in the thermal insulation area, and to help shape temperature-controlled logistics in the long term. These three strategic focus topics are: technology leadership, growth and profitability.

I. Technology leadership

va-Q-tec focuses on consolidating and further expanding its innovation and technology leadership in the thermal insulation area. va-Q-tec is continuously working on innovative technologies, process innovations and new business models that can change not only temperature chain logistics, but also thermal insulation in many industries, such as mobility and technology. va-Q-tec aims to continuously increase its own innovative strength. Advanced VIP types suitable for higher temperatures, for example, as well as new thermal packaging and novel materials form the focus of this approach. In addition, va-Q-tec is striving to further improve thermal logistics under the key concept of “TempChain 4.0” by means of “intelligent” boxes and containers in connection with corresponding software and simulation tools. In accordance with this objective, the Group invests in highly qualified personnel, product development and basic research. The strategy also includes selected investments, such as the investment in the materials start-up SUMTEQ GmbH and the high-tech start-up ING3D GmbH, which is developing a novel technology for the production of pure mineral lightweight materials, including 3D-printed insulation materials. The partnership will combine the two companies’ innovative manufacturing processes and products. For example, the first 3D-printed ceramic insulation material is to be developed. va-Q-tec also pursues cooperation with technology partners in externally funded research and development projects. The medium-term target remains to both defend and further expand the leading technology position.

II. Growth

va-Q-tec’s end markets offer great growth opportunities thanks to the wide range of applications of the technology platform consisting of products, systems and services. va-Q-tec is strongly focused on growth: the company’s processes, organizational structure and business model are aligned to scalability and to the consistent leveraging of growth opportunities. The company is on a clearly defined expansion path with its increasingly international presence, maintaining its solid financing base and focus on business relationships with major customers.

va-Q-tec is oriented to high-growth markets which offer the company attractive target margins, albeit also incurring high upfront costs for the company. Pharmaceutical and biotech customers are of great significance for va-Q-tec: the company generated 74% of its revenues in 2020 (2019: 69%) in its target market of Healthcare and Logistics, its most important pillar. In the temperature-managed logistics area, the global healthcare industry relies increasingly on va-Q-tec's high-quality passive solutions.

At present, potential healthcare customers still frequently use packaging solutions based on conventional insulation materials, and basic water and ice combinations. With the rising quality requirements made of TempChains – in line with “good distribution practice” – customers are substituting these types of basic solutions with high-performance thermal packaging. At the same time, va-Q-tec's rental models (“Serviced Rental”) are aimed at customers for which a purchase of such packaging solutions is not economically viable. With precisely customized rental solutions for high-performance thermal packaging, va-Q-tec also offers them a product with an attractive price/performance relationship. For this reason, va-Q-tec expects to grow further globally in the Healthcare and Logistics target market over the coming years, while outperforming the growth rates of the underlying markets for (healthcare) cold-chain logistics. The aim is to become the globally leading provider of services and packaging solutions in this target market.

In the other target markets, too, the company is aiming to benefit disproportionately from the growth opportunities arising from the trend towards energy efficiency, for example. The company's technology platform, which has grown over the past years, is to be established in defined target markets.

- In the area of refrigerators and foodstuffs, va-Q-tec expects further growth in the medium term, as higher regulatory requirements for the energy efficiency classes of refrigerators mean that VIPs will increasingly have to be utilized. VIPs from va-Q-tec, with their insulating performance that can be verified in the manufacturing process of the original equipment manufacturer (OEM), will particularly benefit from this trend, according to the Management Board's assessment. At the same time, the coronavirus pandemic also underscores the importance of secure, production-based supply chains: with production in Germany and/or Europe, the likelihood of a reliable, improved, continuous supply of VIPs to OEMs can be increased – with at the same shorter and overall lower shipment distances compared to competitors.

- In the e-commerce area, start-ups and large international providers are currently developing, at an accelerated pace, new business models for the delivery of food ordered online directly to the end consumer, including due to the coronavirus-related lockdown measures. The shipment of frozen and easily perishable food to the end-customer is expected to be regulated even more stringently in the future. Overall, the Management Board believes that the coronavirus crisis is boosting the importance of secure TempChains. The high-performance thermal packaging of va-Q-tec are particularly suited to such shipments.
- In addition, growth in VIP product sales is anticipated in the target market of Technics and Industry through introducing energy efficiency classes for water boilers and piping insulation, for example. Here, too, manufacturers equip their premium products with va-Q-tec VIPs in order to achieve classification in the best energy efficiency class.

The last three years reflect the medium-term growth spurts typical of va-Q-tec's dynamic growth markets: revenues in the “Products” segment have almost doubled since 2016 and are currently at a high level.

The end markets of mobility and construction offer additional growth areas in the medium and long term.

Overall, the Management Board expects continuous medium to strong year-on-year revenue growth on average over the next three years, assuming that economic conditions normalize. These growth expectations are driven mainly by the Services and Systems businesses. Opportunities for even stronger growth arise from the anticipated coronavirus-related increase in regulation and demand for secure TempChain shipments.

III. Profitability

Profitability is indispensable in order to secure the company's long-term success and performance, as well as its competitiveness. Operating EBITDA profitability forms the third pillar of the corporate strategy and represents a significant corporate steering metric. In view of very high development, set-up and other start-up costs, this objective is of particular importance.

Various measures in the operational excellence area are being continuously advanced to deliver profitable growth. The Management Board's cost-cutting initiatives primarily concern measures to continuously optimize and harmonize quality, sales processes, organization, resource consumption and purchasing, and IT systems throughout the Group. Economies of scale accompany the expansion of the Group's business activities and corresponding sales revenue growth: the terms on which the Group can purchase intermediate products and third-party services improve significantly with the growing scope of business, and the rising purchasing volumes that accompany such growth. The cost increases for Group support functions such as personnel, marketing, financial accounting and controlling do not match the top-line growth rate. However, the stock exchange listing requires the highest quality level, entailing corresponding expenditure. Various aspects of vertical integration into downstream stages of the value chain contribute to improving profitability. This includes services and business models such as the rental of boxes and containers ("Serviced Rental"). This forward integration and control of upstream value steps to improve profitability forms a central element of the corporate strategy. In the phase of the company's development to date, the dominant focus continued to be on sales revenue growth. As a result of the aforementioned operative and strategic measures, the company is aiming – on the basis of normalized economic circumstances – for a medium to long-term improvement in the EBITDA margin to in excess of 20%.

Group structure, employees, investments and steering

No new subsidiaries were established during the reporting period. A total of eight companies thereby formed the va-Q-tec Group as of the end of the reporting period, comprising the German parent company and seven foreign subsidiaries. The Group's three reporting segments are derived from these eight companies - the German segment (va-Q-tec AG), the UK segment (va-Q-tec Ltd., United Kingdom) and the Other segment, consisting of va-Q-tec Ltd. (South Korea), va-Q-tec Inc. (USA), va-Q-tec Switzerland AG (Switzerland), va-Q-tec Japan G.K. (Japan), va-Q-tec Uruguay S.A. (Uruguay) and va-Q-tec SG Pte. Ltd. (Singapore).

The parent company va-Q-tec AG wholly owned all seven foreign subsidiaries as of 31 December 2020.

In the German segment, va-Q-tec AG covers all three segments (Products, Systems and Services). Since 2015, the business with rental boxes has been reported within the "Services" segment. va-Q-tec Ltd (UK) primarily comprises the "Services" segment with its focus on the rental business of (returnable) containers and boxes.

The "Other" segment comprises the business activities of the other subsidiaries, which are mainly allocated to the Systems and Services divisions. The South Korean subsidiary is responsible both for the procurement of raw materials and input materials for the Group and for the sale of va-Q-tec products in its domestic market. In addition to sales activities, the subsidiary in the USA is primarily engaged in business development in North America. The company continued to realize significant investments in hiring and business development at the US subsidiary. va-Q-tec Switzerland AG renders services (conditioning and cleaning of rental boxes, "fulfillment services") for Swiss Post and other customers in the cold-chain logistics area. Through its fleet of thermal boxes, Swiss Post makes recourse to the technology and process experience of va-Q-tec in Germany. As a sales company, the subsidiary in Japan pursues the objective of enhancing the perception of va-Q-tec as a locally rooted provider in the world's third-largest economy, and of distributing va-Q-tec products and services there. With the subsidiaries in Uruguay and Singapore/Southeast Asia, the aim is to further intensify sales presence in Latin America and Singapore/Southeast Asia. Significant progress was made in this regard in the past 2020 financial year.

To manage the three reporting segments, the management monitors these areas individually and across the Group based on detailed and regular reports. The management steers the allocation of resources based on this information and institutes countermeasures where performance falls short of target. A streamlined Group structure ensures the Group management can effectively control and coordinate the subsidiaries important business decisions.

Key performance indicators used by management for the management of the va-Q-tec Group are revenues, earnings before interest, taxes, depreciation and amortization (EBITDA), as well as the equity ratio. Compared with the previous year, the steering system at va-Q-tec AG has not changed. The Group's specific steering metrics are presented in greater detail below.

Revenue growth represents the basic indicator of business growth and the attractiveness of the Group's products, systems and services. Viewed at the level of the reporting segments and geographic distribution, revenue also serves as an indicator of the success and performance of the Group's business models.

EBITDA serves as the metric for profitability. To this is then added as a subsidiary measure the EBITDA margin measured in relation to total income as a benchmark for the Group's operative performance and profitability. As a fast-growing technology company, va-Q-tec invests significant proportions of its financial resources in machinery, plant and its fleet of containers and boxes for rental services. A high level of depreciation during the current phase of establishing infrastructure and fleet distorts the actual picture of financial performance. For this reason, EBITDA, as an earnings figure before depreciation presents a more meaningful metric of the company's performance.

The equity ratio provides information about the strength of the va-Q-tec Group's balance sheet, its capacity to withstand crises, its creditworthiness and its credit risk. In the medium term, the company regards an equity ratio with a target range between 35% and 40% as representing a balanced relationship between debt and equity, and consequently of the risk distributed among equity investors and creditors.

In the area of non-financial performance indicators, the number of employees serves as an indicator and central steering metric of the growth in the Group's operating activities.

The following overview shows the growth in the relevant steering metrics.

A detailed analysis of the key figures can be found in the section "Financial position and performance".

kEUR unless stated otherwise	2020	2019	Δ 20 / 19
Revenues	72,106	64,667	12 %
EBITDA (IFRS)	11,399	9,673	18 %
EBITDA margin (IFRS)	14 %	13 %	+1 pp
Equity ratio	35 %	40 %	-5 pp
Year-average number of employees	519	464	+12 %

2.1.2 Research and development

va-Q-tec is one of the leading technology innovators in the development and production of energy efficient and space-saving VIPs, high-performance PCMs and thermal packaging systems. The research and development area is of strategic importance to secure and further extend the company's technology leadership in the thermal insulation areas. Group research at va-Q-tec operates across the whole company, developing technologies for future-viable products and solutions for the Group companies.

va-Q-tec conducts internal and external research and development (R&D) projects with partner companies and institutes. Not only do such projects serve basic research on VIPs, they also address the five target sectors defined by va-Q-tec, which require excellent thermal insulation and thermal energy storage.

As a spin-off from a university – the Bavarian Centre for Applied Energy Research (ZAE Bayern) – va-Q-tec maintains partnerships with international associations, research institutions, universities and colleges, such as Würzburg University. Internally, the company has established its own R&D organization with extensive capacities for basic research and, in particular, application-oriented research.

The past years' successful R&D activities have created a portfolio of patents which is reflected in our leading technology platform.

The worldwide unique va-Q-check® quality control system enables the insulation of VIPs to be controlled before use, or boxes and containers to be approved for reuse through measuring internal gas pressure. va-Q-tec VIPs are thereby the only heat insulation whose performance and efficacy can be measured and controlled at the place of use. This creates confidence in VIP technology and enables va-Q-tec to meet the high quality requirements of our demanding clientele. For example, the thermal protection requirements required for cold chain shipments can be securely and verifiably complied with.

The patented va-Q-pro is a largely freely formable, powder-filled VIP, from which holes and sections can be cut on the production side and which can be manufactured in three-dimensional geometry. Thanks to these properties and flexible design latitudes, va-Q-pro can be used in a wide variety of applications, for example in the insulation of batteries in electric vehicles or in the insulation of aircraft areas, e.g. the galley.

In 2020, va-Q-tec continued to conduct basic research, for example in the application of VIPs in completely new temperature ranges. While conventional VIPs are typically used in the temperature range from -80 to 80 °C, va-Q-tec is working on extending this temperature range by optimally combining different covering materials and core materials, so that, for example, temperature classes from 80 to 180 °C or even in excess of 400 °C are possible. The partnership with Cologne-based start-up SUMTEQ, in which va-Q-tec also holds an interest, is of strategic importance in the area of basic research in relation to VIP core materials. The joint target of va-Q-tec and SUMTEQ remains the pilot testing and market launch of SUMTEQ's submicroporous foams as a further high-performance insulation material. This strategic partnership offers both companies the opportunity to contribute their respective specialist and technical research and development expertise, and thereby generate added value for customers. Accompanied by va-Q-tec's expertise, SUMTEQ commenced small series production during the reporting period, thereby reaching an important milestone towards large-scale production and marketing.

Furthermore, the interest in ING3D GmbH is of strategic importance in the application-oriented research area. With the 3D printing technology developed by ING3D, it is possible to manufacture extremely light, non-combustible and freely shapable lightweight materials. The Mineral Direct Laser Sintering (MDLS) process, for which ING3D has filed a patent application and which is the first purely mineral/ceramic printing process worldwide, opens up completely new possibilities in material production: the ceramic raw material used can be processed into ecologically compatible and at the same time cost-effective molded parts. This is achieved without the previously necessary plastic content in the starting material, and results in pure and ecologically compatible, lightweight objects. The end products can be deployed multifunctionally, thereby offering advantages in terms of acoustic and thermal insulation as well as fire protection, especially in small spaces. These properties and the combination with va-Q-tec's VIP insulation technology consequently also enable completely new approaches in the construction and automotive industries.

In the year under review, va-Q-tec worked mainly on expanding and improving its existing product portfolio:

In the Products division (vacuum insulation panels, abbreviated as "VIPs"), work was carried out on the further development of the existing portfolio and the new development of a panel class for medium and high temperatures. Such panels can be used wherever temperatures in excess of 400 °C prevail on the one hand, and where very good insulation is required on the other, e.g. ovens for industry and food.

With the "va-Q-shell pipe" insulation system developed in 2020, pipelines can be thermally insulated in a cost-efficient, secure and environmentally compatible manner. This increases energy efficiency, for example, in industrial plants, building installations as well as in local and district heating networks. va-Q-shell pipe is suitable for insulating pipes that are not insulated in the factory, as well as for retrofitting. Thanks to its material properties, it thereby improves energy efficiency while reducing insulation thickness by up to 50%. With va-Q-shell pipe, va-Q-tec has successfully expanded its product portfolio for increasing the energy efficiency of industrial plants, building installations as well as local and district heating networks.

In order to be able to supply regions of the world with medicines and especially with coronavirus test kits as well as vital vaccines, va-Q-tec 2020 has further developed its va-Q-pal SI pallet container. The va-Q-pal SI is made of environmentally compatible materials and can be reused several times. At the same time, it has insulation properties comparable to the va-Q-tainer in the rental network, and is consequently ideally suited for temperature-controlled shipments to countries from which it is difficult to return empty rental containers.

With the stackable "va-Q-tray" thermal packaging system, food can be transported in such a way that it remains warm, cold or frozen for several days. The temperature holding time can optionally be extended by PCM rechargeable batteries. With the va-Q-tray, for example, bakery branches can be supplied efficiently with fresh produce: in contrast to existing systems made of styrofoam, va-Q-tray meets the highest requirements in terms of hygiene and temperature chain, the system can be used universally, e.g. also as a portable refrigerator, and can be combined with non-insulated standard containers. In addition to the hygienic advantages, this also leads to cost savings as additional refrigerated vehicles can be dispensed with.

With external logistics partners, the “va-Q-med” transport system was significantly further developed in 2020. va-Q-med guarantees secure shipment without temperature deviations on the last mile, directly to the recipient. Unlike conventional, inefficient one-way packaging, or CO₂-intensive extra shipments with refrigerated vehicles in congested inner cities, the va-Q-med boxes enable environmentally compatible, traffic-reducing and at the same time secure shipment logistics. The transport system consists to a large extent of VIPs. Phase change materials (PCMs) from va-Q-tec complement the VIPs’ strong insulating performance. The PCMs ensure reliable and energy-efficient temperature control within the required range.

In order to control logistic processes, va-Q-tec is increasingly developing state-of-the-art software and simulation solutions under the key concept “TempChain 4.0”. va-Q-tec is thereby making the TempChain smart, as it can be intelligently controlled in combination with va-Q-tec thermal packaging. Resources in the IT area were further strengthened to this end in 2020. For example, the newly developed va-Q-nection service solution supports customers in the secure and regulatory-compliant monitoring of the TempChain during shipment. This innovation enables the temperature inside the thermal boxes to be traced in an uncomplicated and secure manner. The va-Q-nection app and TempChain service software enable the recipient to read the temperature report with a mobile device, regardless of location, without having to access the shipment and interrupt the TempChain by opening the shipment packaging.

The technology platform is secured through more than 180 industrial property rights and filings for industrial property rights. These relate mainly to efficient manufacturing methods for powder-filled VIPs as well as the va-Q-check® quality control system, a sensor technology to measure vacuums in VIPs. A total of eleven industrial property rights were filed, including five patents and six registered designs.

The company made further investments in its research and development area in the year under review. Expenditure for this area amounted to kEUR 2,694, above the previous year’s level (kEUR 2,417). Research and development costs of kEUR 359 in total (previous year: kEUR 300) were capitalized in the reporting period.

2.2 BUSINESS REPORT

2.2.1 Macroeconomic environment and Group-specific conditions

The outbreak of the SARS-CoV-2 coronavirus combined with restrictive measures to contain the pandemic led to an unprecedented economic downturn worldwide in 2020. After economic forecasts around the world had to be sharply revised downwards in March and April 2020, the economy recovered rapidly from May to October 2020, between the two major waves of the pandemic. The Eurozone, which was hit particularly hard by the virus, even managed to make up almost all of the second quarter’s loss in the third quarter of 2020. This suggests that the economy will regain momentum in spring 2021 after the currently severe second wave has subsided. Risks arise from the low vaccination rate in Europe as well as possible virus mutations for which previous vaccines may prove less effective. Since the start of the pandemic, central banks have implemented numerous measures to prevent the recession from triggering an additional financial crisis. Moreover, extensive economic stimulus packages were adopted worldwide. The new US president’s consensus-based trade and economic policy is also likely to have a positive impact on global trade – and thereby on strongly export-oriented economies in Europe, especially the domestic economy. For further information on coronavirus in connection with va-Q-tec, please see the report on opportunities and risks.

The International Monetary Fund (IMF) forecast that the global economy will have contracted by 3.5% in 2020 due to coronavirus. Provided the coronavirus-related risks subside in 2021 and monetary and fiscal policies remain supportive, the economic recovery from the coronavirus crisis could accelerate in 2021. Accordingly, the IMF expects growth to resume at a level of 5.5% in 2021. Developing and emerging economies will make an above-average contribution to global growth, according to the forecast. As a globally active Group, va-Q-tec consequently sees itself exposed to both opportunities and risks in macroeconomic terms.

Key revenue drivers for the va-Q-tec Group include the two target markets of Healthcare and Logistics as well as Appliances and Food, which together account for 88% of consolidated revenue.

The market for temperature-controlled packaging systems in the pharmaceutical sector is influenced worldwide by sustainable trends, which will hardly be affected by the Covid-19 pandemic, or will tend to accelerate further. More and more drugs are temperature-sensitive, regulation of transport chains is increasing and drugs are developed and produced in a relatively decentralized manner globally. Market research agency ResearchAndMarkets takes an optimistic view of market growth over the coming years: over the 2018 to 2023 period, ResearchAndMarkets expects an average annual growth rate of 9.1 %, whereby va-Q-tec assumes the relevant market subsegments (high-performance packaging systems) will grow faster. More stringent regulatory requirements made of TempChain logistics (according to "Good Distribution Practice") are making ever more efficient packaging systems necessary for pharmaceutical industry customers. Of the top 100 drugs in the world, around 70% are temperature sensitive.

More than half of the temperature-sensitive drugs are biopharmaceuticals – drugs that the manufacturer produces from biological sources. Industry specialist Pharmaceutical Commerce expects temperature-sensitive biopharmaceuticals to register an above-average annual growth rate of around 8% between 2017 and 2023. The growth potential of va-Q-tec is also supported by the fact that the pharmaceutical markets in emerging markets are growing more strongly, resulting in more shipments through different and more extreme climatic zones. This makes good temperature control during shipments increasingly important.

The functioning of SARS-CoV-2 vaccines and vaccines in general, such as vector-based and mRNA vaccines, as well as the challenges relating to their temperature-controlled shipment, have come into public focus in the wake of the coronavirus crisis. Reliable, secure shipment of the raw materials required for vaccine production is already necessary during the manufacturing process. In many cases, these have to be transported at a constant temperature, e.g. as low as -70 °C – often for several days.

va-Q-tec is convinced that it can outpace the rate of market growth both with its high-quality system solutions in sales as well as with its rental solutions ("Serviced Rental" of thermal packaging systems). Especially with groundbreaking rental solutions, va-Q-tec aims to enter markets that only conventional thermal packaging systems have served to date.

After the healthcare industry, manufacturers of refrigeration and freezing equipment are the second most important customer. According to an estimate by ResearchAndMarkets, the market for vacuum insulation panels will grow by 20% annually between 2019 and 2026.

Overall, va-Q-tec addresses growing markets with its products business and its VIPs. In Germany, approximately 60% of primary energy is harnessed for thermal purposes – refrigeration or heating in other words – according to the Working Group on Energy Balances (AGEB). Since the foundation of va-Q-tec, an important goal has been to deploy the company's products in order to make the worldwide consumption of energy for thermal purposes as efficient as possible, and to reduce greenhouse gas emissions. For example, the vacuum insulation panels produced annually for the refrigerator industry already save the energy generated by many wind turbines. With rising consumer prices for primary energy worldwide, growing customer awareness of energy savings ("Fridays for Future") and more stringent statutory regulations, the economic and political incentive to invest in energy efficiency is increasing. This is leading to very interesting business opportunities for va-Q-tec products in the thermal energy efficiency area.

2.2.2 Business trends

In the first quarter of 2020, the global spread of the SARS-CoV-2 virus and the necessary countermeasures had already significantly restricted economic activity worldwide. This trend continued in the second quarter. In the third and fourth quarters – before the renewed lockdown – the economy made a noticeable recovery. As a specialist for high-tech insulation boxes and containers, va-Q-tec 2020 tended, however, to be only marginally affected by the global economic effects, taking into account the positive and negative consequences overall. Rather, it is clear that va-Q-tec's shipment solutions have provided a key support in global efforts to combat the Covid-19 virus, including the shipment of temperature-sensitive Covid-19 test kits and drugs. With va-Q-tec's help, several hundred million coronavirus test kits were transported worldwide by air freight. However, va-Q-tec's high-tech boxes and containers are also used worldwide for other urgently needed medicines: varying from international long-distance deliveries to short-distance shipments on the last mile to the patient. Demand for such shipment solutions for the temperature-controlled shipment of pharmaceutical and biotech products continued to grow even during the coronavirus

crisis, so that in 2020 the share of revenue generated by solutions for the healthcare industry expanded to 74% (2019: 69%). Nevertheless, the vacuum insulation panel business suffered setbacks, especially as production facilities, for example those of refrigerator customers, had to close temporarily due to the pandemic. Likewise, va-Q-tec is very involved internationally in the business with clinical trials. Here, too, a decrease occurred in 2020, as considerably fewer new trials were launched due to coronavirus.

The global distribution of coronavirus vaccines poses a further challenge that is becoming increasingly important. These must be transported at constant temperatures in order to be able to ensure their effectiveness at the destination. In particular, mRNA vaccines require a controlled and constant cold chain in this extremely low temperature range in order to ensure efficacy. In the worst case, temperature deviations in a vaccine can lead to spoilage of the valuable product. To date, this temperature range has only rarely been required within thermologistics, and above all not in the shipment volumes that are now required. For this reason, va-Q-tec had already been preparing intensively for this task since the summer of 2020.



The sharp reduction in air freight capacities that has been caused by the coronavirus restrictions poses an additional challenge, especially for pharmaceutical logistics. "Made in Germany" passive high-performance containers and boxes are ideal for shipments of this kind. Thanks to their product properties, they are able to maintain a constant internal temperature for up to 200 hours, including in extreme or fluctuating outside temperatures – without the need for expensive and cumbersome external energy supply during shipment.

As early as the fourth quarter of 2020, va-Q-tec consequently started to further increase the existing thermal container fleet in order to ensure the containers' availability and high quality standards, including in the event of a very short-term ramp-up of global vaccine production and distribution. For the same reason, additional investments were made in the technical infrastructure of the worldwide TempChain network and the establishment of further stations worldwide.

Overall, business in 2020 performed well, including thanks to a portfolio that is in demand in times of crisis. Dynamic revenue growth continued with an 12% growth rate. Earnings before interest, tax, depreciation and amortization (EBITDA) increased by 18% year-on-year from kEUR 9,673 to kEUR 11,399. The margin thereby rose from 13% to 14% in terms of total income and from 15% to 16% in relation to revenues.

Systems division (sale of thermal packaging systems)

In the Systems division, revenues grew by 30% year-on-year, from kEUR 15,054 in 2019 to kEUR 19,520. Large orders from Scandinavia for several thousand thermal boxes based on va-Q-med® technology were especially important for va-Q-tec in 2020. The boxes have been additionally adapted to customer requirements for the special application: in order to integrate the thermal packaging into local operating procedures and to be able to utilize it in severe Scandinavian winters without problems, modifications were made to the boxes' design in response to customer wishes.

These orders are in line with further last-mile projects in Germany (kohlpharma), Switzerland (Swiss Post), Singapore and further countries, thereby underscoring the growing international importance of "last mile" solutions from va-Q-tec. This "last mile" – the last mile from the wholesaler to the pharmacy, or from the (online) pharmacy directly to the patient – presents suppliers worldwide with major challenges. The TempChain required for drug logistics must be stringently adhered to, and documented, in order to ensure that temperature-sensitive medications are effective.

In order to be able to supply difficult-to-reach regions with the temperature-sensitive drugs, Covid-19 diagnostic kits and coronavirus vaccines, va-Q-tec has developed a shipment solution especially for coronavirus test kits and vaccines within a very short time for the Systems division: the va-Q-pal SI (SI for SuperInsulation). This solution is fully adapted to the size of usual pallets, and has a very good temperature holding time. For example, this solution can maintain the frequently required temperature range of -20 °C required for coronavirus diagnostic kits for 120 hours, including in extreme external temperatures, without being dependent on external energy input or even constant refilling with dry ice.

Services division (Serviced Rental of thermal packaging systems)

va-Q-tec's Services business comprise the container and box rental business for the shipment of temperature-sensitive goods, predominantly products from the pharmaceuticals and biotech areas. In the 2020 financial year, this division recorded an increase of 10% to kEUR 32,657 compared to the same period of the previous year (2019: kEUR 29,811). Overall, the customer base continued to broaden and more supply lines were put into operation. While the rental of thermal boxes for clinical studies in 2020 decreased due to coronavirus, the division benefited from a large number of international shipments of Covid-19 diagnostic kits and initial vaccine shipments. The expansion of the Services division will continue in the future and is considered a key growth factor for va-Q-tec.

Products division (sale of vacuum insulation panels and phase change materials)

va-Q-tec's solutions in its Products division help companies to realize more energy efficiency and sustainability in numerous application areas and products. In addition to refrigerator manufacturers, customers of va-Q-tec that are already benefiting from this are to be found, for example, in the construction industry (building insulation) and in the commercial vehicle industry (refrigerated trucks).

In 2020, revenue was stable compared to the prior-year base at kEUR 18,303 (2019: kEUR 18,440). On the one hand, pandemic-related closures of customers' production plants in the refrigerator sector had a negative impact on va-Q-tec's business in the first half of the year. In part, this situation persisted until the end of May. At the same time, since the start of the previous year (2019), va-Q-tec's European customers have been experiencing increasing competitive pressure from Asia and Eastern Europe in consumer markets for refrigerators and freezers. At the end of the second quarter of 2020, the sale of VIPs reported initial catch-up effects, which continued during the third and fourth quarters of 2020.

In September 2020, va-Q-tec invested together with a co-investor in 3D printing start-up company ING3D (from Fürth, Germany) as part of strategic first-round financing. ING3D has succeeded in creating the first purely mineral 3D print worldwide, with the patent for the process pending at present. The aim of the partnership with ING3D is to develop in the medium term a novel type of 3D-printed insulation material that enables complex construction forms, including for high-temperature applications. Although the project is still at an early stage, it joins other already commercially significant projects, e.g. in the areas of Technics and Industry as well as Mobility. In the third quarter of 2020, va-Q-tec presented its latest product development, the “va-Q-shell pipe”. With this insulation solution, pipelines – through which a significant amount of thermal energy continues to be lost today – can be thermally insulated in a cost-effective, secure and environmentally compatible manner. va-Q-tec is thereby advancing the topic of “energy efficiency in technical applications”, and with the help of high-margin high-tech solutions is developing its Products division further in order to differentiate itself to an even greater extent from its competitors.

National and international business trends

In November 2020, va-Q-tec announced the successful conclusion of an extensive heads of terms agreement with a global pharmaceutical manufacturer for the provision of thermal containers for the international distribution of a coronavirus vaccine. It has been agreed with the partner that the global, large-volume distribution of its vaccines will start with the help of va-Q-tec’s shipment solutions. The potential order volume extends to several thousand of the high-performance thermal containers and thereby lies in the high single-digit million euro range in terms of revenue. The approval of the active substance, which it is currently assumed will be granted, is an essential prerequisite in this context.

In view of the expected large number of vaccine shipments worldwide, va-Q-tec already further expanded the technical infrastructure of the Group’s own global TempChain network in 2020. Two new TempChain Service Centers were opened in Kansas (USA) and Glasgow (UK) in the second half of the year. Four further stations on three continents will follow in the first quarter of 2021. Through its 40 international stations, va-Q-tec gives pharmaceutical companies access to a fleet of several thousand passively temperature-controlled high-tech rental containers. In total, va-Q-tec, according to its own estimates, has the world’s largest fleet of passively temperature-controlled, high-performance thermal containers at its disposal.

In November 2020, va-Q-tec issued a CHF 25 million bond. The bond was offered for public purchase exclusively in Switzerland and is intended to serve further investments in the container and box fleets, the scheduled refinancing of existing financial debt, and general financing purposes.

2.2.3 Non-financial performance indicators

Employees at va-Q-tec

As a technology company with extensive coverage of the value chain, va-Q-tec ascribes particular significance to its staff and their qualifications. The employees’ knowledge, skills, further development and commitment are essential for va-Q-tec’s further success and performance. Staff received both in-house and external training measures during the year under review. Along with corresponding functional training sessions for employees, the focus was on the cross-functional topic of project management. va-Q-tec employs a high number of students, especially in research and development. A total of 20 working students were employed at va-Q-tec (previous year: 14). The average of employees (including Management Board members and trainees) grew in the previous by 55, from 464 in the previous year to 519 in the 2020 financial year.

2.2.4 Business results and analysis of the financial position and performance

Results of operations

kEUR unless stated otherwise	2020	2019	Δ 20/19
Revenues	72,106	64,667	+12%
Total income	84,132	72,817	+16%
Cost of materials and services	-32,751	-28,993	+13%
Gross profit	51,381	43,824	+17%
Personnel expenses	-26,111	-22,389	+17%
Other operating expenses	-13,871	-11,762	+18%
EBITDA	11,399	9,673	+18%
<i>EBITDA margin on total income</i>	14%	13%	+1 pp
<i>EBITDA margin on revenue</i>	16%	15%	+1 pp
Depreciation, amortization and impairment losses	-12,299	-12,232	+1%
EBIT	-900	-2,559	+65%
Result from equity accounted investments	-	-68	-
Fair value measurement of SUMTEQ	647	1,771	-63%
Net financial result	-1,259	-1,063	-18%
EBT	-1,512	-1,919	+21%

Overall new order intake in the 2020 financial year was significantly above the previous year's level. As of 31 December 2020, the order book position was also further increased compared to the previous year, supporting the company's positive outlook. Given this, va-Q-tec increased its revenues by 12% to kEUR 72,106 in the 2020 financial year. The revenue growth was driven by the Systems division (sale of thermal packaging systems) and the Services division ("serviced rental" of thermal packaging systems), whereas the Products division decreased slightly due to coronavirus.

With the publication of the half-year figures, the Management Board had specified the revenue and EBITDA forecast for the 2020 financial year. As part of this specification, the company assumed strong revenue growth of 10–15% year-on-year. In addition, va-Q-tec continued to expect a year-on-year improvement in the EBITDA margin in the 2020 financial year. This specific forecast was achieved with the final results.

The German segment (va-Q-tec AG) contributed kEUR 34,847 to consolidated revenue (previous year: kEUR 34,442), the UK segment (va-Q-tec UK) kEUR 28,776 (previous year: kEUR 24,917), and the Other segment kEUR 8,483 (previous year: kEUR 5,308).

In the 2020 financial year, revenues generated with Products (sale of vacuum insulation panels) were down by 137 from kEUR 18,440 to kEUR 18,303 (-1%). In the Systems division (sale of thermal packaging), revenue increased year-on-year by kEUR 4,466, from kEUR 15,054 to kEUR 19,520 (+30%). The Group generated revenues of kEUR 32,657 with Services ("Serviced Rental" of thermal packaging), compared with kEUR 29,811 in the previous financial year (kEUR +2,846; +10%).

Total income reported stronger growth than the rate of revenue growth in the reporting period, rising by 16% to kEUR 84,132 (previous year: kEUR 72,817). Work performed by the company and capitalized in the amount of kEUR 6,379 (kEUR 3,947), which is included in this item, arose in the reporting period primarily from the continued expansion of the container and box fleets produced in-house. Other operating income of kEUR 4,669 (EUR 4,498) resulted mainly from the reversal of the special item from container sale-and-leaseback transactions. Until the end of 2018, this special item on the liabilities side arose from the sale of self-manufactured containers by the parent company va-Q-tec AG or va-Q-tec UK Ltd. to leasing companies and subsequent finance leaseback by the UK subsidiary, and is reversed over a period of five years (for further explanations, please refer to the section "Sale-and-finance-leaseback transactions" in the notes to the consolidated financial statements).

The cost of materials and purchased services rose by 13% from kEUR 28,993 in the previous year to kEUR 32,751. The increase is primarily attributable to higher revenues in the Systems business and logistics costs in the "Serviced Rental" segment. Despite the sharp decrease in air freight capacities due to Covid-19, material costs and purchased services in relation to total income reduced by one percentage point from 40% in 2019 to 39% in the reporting period. In parallel, the gross profit ratio improved to 61% in 2020 (previous year: 60%).

Personnel expenses in 2020 were up by kEUR 3,722 compared with the prior year, rising from kEUR 22,389 to kEUR 26,111 (+17%). Measured in terms of total income, this corresponds to a stable ratio of 31% (previous year: 31%). In addition to usual wage and salary increases, the rise in absolute terms mainly reflects the year-on-year increase in the average number of employees by 55 individuals.

Other operating expenses increased by EUR 2,109, from kEUR 11,762 in the prior-year period to kEUR 13,871 in 2020 (+18%). Measured against total income, this results in a stable other operating expense ratio of 16% (previous year: 16%), unchanged from the previous year. In particular, higher freight costs and the weak US dollar exerted a particularly negative impact on other operating expenses in the third and fourth quarters.

Overall, earnings before interest, tax, depreciation and amortization (EBITDA) rose by kEUR 1,726, from kEUR 9,673 to kEUR 11,399 (+18%). This corresponds to a slightly improved EBITDA margin of 14% in 2020, compared with 13% in 2019, in relation to total income. In terms of revenues, it represents an improvement from 15% in 2019 to 16% in 2020. Adjusted for the higher net balance of foreign currency income and expenses, EBITDA would have increased by kEUR 2,622, from kEUR 9,598 in the previous year to kEUR 12,220 (+27%). This would correspond to an EBITDA margin of 15% in 2020, after adjusting for the higher net balance of foreign currency income and expenses, compared with 13% in 2019, in relation to total income. In terms of revenues, it would represent an improvement from 15% in 2019 to 17% in 2020.

Given the moderate level of investment activity, depreciation, amortization and impairment losses reported only a slight increase to kEUR 12,299 (previous year: kEUR 12,232).

The operating result (EBIT) in 2020 amounted to kEUR -900. Compared to the previous financial year, this represents a significant EBIT improvement of kEUR 1,659 (previous year: kEUR -2,559). Adjusted for the higher net balance of foreign currency income and losses, EBIT would even have increased by kEUR 2,554, from kEUR -2,633 in the previous year to kEUR -79.

The net financial result amounted to kEUR -1,259 after kEUR -1,063 in the previous year and reflects the increased use of borrowed capital.

For the 2020 financial year, earnings before taxes (EBT) improved slightly compared to the previous financial year to kEUR -1,512 (previous year: kEUR -1,919). The gain included here, recognized in profit or loss, due to the change in the fair value of the investment in SUMTEQ GmbH as a result of a further capital increase of the company amounts to kEUR 647 (previous year: kEUR 1,771).

German reporting segment (va-Q-tec AG)

kEUR unless stated otherwise	2020 (IFRS)	2019 (IFRS)	Δ 20 / 19
Revenues	49,363	44,028	+12 %
EBITDA	1,718	1,009	+70 %
Equity ratio	46 %	56 %	-10 pp
Average number of employees	440	398	+42

In the German reporting segment (va-Q-tec AG), revenues grew from kEUR 44,028 in the previous year to kEUR 49,363 in 2020 (+12 %). EBITDA increased by 70 % to kEUR 1,718 in 2020 (previous year: kEUR 1,009). The revenue and earnings growth occurred primarily thanks to higher sales to the UK subsidiary of containers produced in-house, and the growing business with systems (integrated thermal packaging). The number of employees rose by 42 year-on-year to 440 (previous year: 398).

UK reporting segment (va-Q-tec UK Ltd.)

kEUR unless stated otherwise	2020 (IFRS)	2019 (IFRS)	Δ 20 / 19
Revenues	30,038	26,255	+14 %
EBITDA	11,348	8,665	+31 %
Equity ratio	26 %	16 %	+10 pp
Average number of employees	49	41	+8

The UK reporting segment comprises mainly the rental of temperature-managed containers for the global pharmaceuticals industry. Revenues in this segment rose significantly in 2020, by kEUR 3,783 (+14%), from kEUR 26,255 in the previous year to kEUR 30,038. The UK reporting segment also benefited from deliveries of test kits, drugs and initial vaccines due to coronavirus, but also experienced coronavirus-related delays in the development of new projects. Among other things, a record number of shipments in the global container rental business were handled by the logistics team of va-Q-tec Ltd. with a high degree of cost discipline despite significantly reduced air freight capacities. EBITDA in this segment rose by 31 % year-on-year from kEUR 8,665 in 2019 to kEUR 11,348 in 2020 thanks to the significant revenue growth as well as lower-than-average cost increases reflecting optimized logistics processes for the container fleet. The number of employees rose by 8 to 49 (previous year: 41).



Other reporting segment

kEUR unless stated otherwise	2020 (IFRS)	2019 (IFRS)	Δ 20 / 19
Revenues	9,768	6,511	+50 %
EBITDA	-289	-186	-55 %
Equity ratio	-17 %	-7 %	-11 pp
Average number of employees	30	25	+5

The subsidiaries in Singapore, Korea, Switzerland, Japan, Uruguay and the USA, which together form the Other reporting segment, also made a disproportionately high contribution to the Group's revenue growth. This segment's revenue share expanded by 12% in 2020 (2019: 8%). This was mainly due to significant growth in internal revenues in the regions. The subsidiaries in Korea and Uruguay performed especially well in terms of revenue growth. The Korean subsidiary even achieved a slightly positive EBT. All subsidiaries in the Other reporting segment are particularly important for local presence, the expansion of regional operating activities, and the perception of va-Q-tec as a reliable global and regional partner. Revenue increased by kEUR 3,257 (+50%), from kEUR 6,511 in the previous year to kEUR 9,768 in 2020. EBITDA amounted to kEUR -289 (previous year: kEUR -186, -55%). The number of employees rose to 30 as of 31 December 2020 (previous year: 25).

Financial position

Principles and goals of financial management

va-Q-tec's financing strategy is oriented to providing the financial resources required for strong growth. Recourse is made in this context to various financing instruments such as loans, leasing, factoring, overdrafts and government subsidies. Existing financing instruments were optimized continuously in terms of their structures and interest rates. In total, va-Q-tec has adequate financial resources for the needs of a rapidly growing company as of 31 December 2020 with bank balances plus open credit lines of more than EUR 28 million.

In November 2020, the company placed its first transaction on the debt capital market, a CHF bond led by Helvetische Bank AG. The coupon of the 5-year bond was set at 3¾% p.a., and the issue amount at CHF 25 million. The Multibank Framework Credit Agreement was extended by 3 years (until 31 December 2023). Under the terms of the multi-bank agreement, va-Q-tec has made its inventories available to the syndicate banks as collateral for the credit lines, and has undertaken to maintain a minimum equity ratio of 30% as well as minimum EBITDA metrics. In addition, the company has undertaken not to fall below a liquidity level of kEUR 5,000 for the term of the bond. In addition, the Management Board is continuously in talks with banks and financial institutions with regard to short- and medium-term debt financing instruments.

Liquidity

kEUR	2020	2019
Net cash flow from operating activities	7,405	7,188
Net cash flow from investing activities	-11,819	-8,942
Net cash flow from financing activities	14,124	-2,972
Net change in cash and cash equivalents	9,644	-4,664

Net cash flow from operating activities including working capital changes amounted to kEUR 7,405 in 2020, kEUR 217 above the adjusted level of kEUR 7,188 in the prior year. Before working capital changes, va-Q-tec generated a positive cash flow from operating activities of kEUR 6,745 as of the balance sheet date, not least due to the improvement in EBITDA, compared with kEUR 5,808 in 2019.

Overall, the changes in working capital had a positive effect on cash flow from operating activities. The effect from the increase in inventories of kEUR 981 (previous year: kEUR 333), which was used to increase reserve stocks of materials required for production and the equipping of the subsidiaries abroad, was offset by effects from the increase in trade payables of kEUR 1,617 (previous year: kEUR 127). Trade receivables remained almost unchanged year-on-year at kEUR 24 compared to kEUR 920 in the previous year due to opposing effects (expansion of the business volume on the one hand, and expansion of factoring at the subsidiary in the UK on the other). In total, the effect from working capital changes of kEUR 660 on operating cash flow was thereby significantly lower than in the previous year (kEUR 1,380).

Cash flow from investing activities changed from kEUR -8,942 in the prior-year period to kEUR -11,819 in 2020. The purchase of property, plant and equipment resulted in kEUR -11,351 of cash flow, compared with kEUR -8,746 in the previous-year period. Due to the expected increase in demand in the wake of the coronavirus pandemic, a selectively increased need for investment has been identified. In principle, however, the most important investments and initiatives for further growth towards EUR 100 million in revenues have already been completed for the most part in 2018, faster than originally planned.

The cash flow from financing activities of kEUR 14,124 (previous year: kEUR -2,972) results primarily from the issuance of the CHF bond to finance long-term investments and corporate growth, including working capital requirements, with a simultaneous reduction in bank borrowings and liabilities from leasing agreements.

Net assets and capital structure

Assets

kEUR	31/12/2020	31/12/2019
Non-current assets		
Intangible assets	2,955	2,233
Property, plant and equipment	69,636	68,879
Investment property	1,614	1,614
Capitalized contract costs	73	158
Financial assets	3,503	2,474
Other non-financial assets	1,056	1,100
Deferred tax assets	2,471	2,319
Total non-current assets	81,308	78,777
Current assets		
Inventories	11,615	10,676
Trade receivables	6,532	6,666
Other financial assets	927	586
Tax assets	3	230
Other non-financial assets	1,549	1,364
Cash and cash equivalents	17,134	7,490
Total current assets	37,760	27,012
Total assets	119,068	105,789

Compared with 31 December 2019, property, plant and equipment increased slightly kEUR 68,879 from by a total of kEUR 757 to a level of kEUR 69,636 as of 31 December 2020. Total non-current assets rose by kEUR 2,531 from kEUR 78,777 to kEUR 81,308 as of 31 December 2020. In addition to the fair value measurement of the SUMTEQ investment, this slight increase is mainly due to investments in production capacity and intangible assets.

Inventories increased by kEUR 939 to kEUR 11,615 (previous year: kEUR 10,676) in line with revenue growth, which is also attributable to a higher level of reserve stocks, pre-production due to Covid-19 and equipment for the foreign companies. Despite the growth in revenue, trade receivables decreased slightly by kEUR 134 to kEUR 6,532 as of 31 December 2020 compared with 31 December 2019 (previous year: kEUR 6,666). This is due, among other things, to an expansion of factoring in relation to receivables of the UK subsidiary in the 2020 financial year. Current other financial assets increased by kEUR 341 from kEUR 586 to kEUR 927 as of 31 December 2020, due to receivables from the factoring company, e.g. for deposits. Total current assets rose from kEUR 27,012 as of 31 December 2019 to kEUR 37,760 as of 31 December 2020. This is primarily due to the significant increase in cash and cash equivalents, the total of which rose by kEUR 9,644, from kEUR 7,490 to kEUR 17,134. In the same period, for the aforementioned reasons, total assets reported a considerable rise from kEUR 105,789 to kEUR 119,068 as of 31 December 2020.

Investments

The focus of investment activity in 2020 was on continued investment in production capacity in Würzburg and Kölleda, the expansion of the container fleet for the global container rental business and the expansion of the thermal box fleet. A total of kEUR 12,433 (previous year: kEUR 11,310) gross was invested in property, plant and equipment, of which kEUR 4,034 was invested in the container fleet (previous year: kEUR 2,404) and kEUR 1,853 in intangible assets (previous year: kEUR 710).

Property, plant and equipment, net of depreciation and other movements, rose slightly from kEUR 68,879 to kEUR 69,636. After a large part of the basic investments for a revenue volume of EUR 100 million had already been made in 2017 and 2018, selective investments in new capacities are unavoidable in the context of the significantly higher demand expected in 2021 (coronavirus vaccine shipments).

Equity and liabilities

kEUR	31/12/2020	31/12/2019
Equity		
Issued share capital	13,090	13,090
Treasury shares	-54	-54
Additional paid-in capital	46,158	46,158
Cumulative other comprehensive income	-42	-26
Retained earnings	-17,896	-16,461
Total equity	41,256	42,707
Non-current liabilities and provisions		
Provisions	96	73
Bond	22,064	-
Bank borrowings	25,170	22,840
Other financial liabilities	3,857	5,333
Other non-financial liabilities	5,425	6,547
Deferred tax liabilities	-	-
Total non-current liabilities and provisions	56,612	34,793
Current liabilities and provisions		
Provisions	190	130
Bank borrowings	3,919	11,404
Other financial liabilities	6,434	6,867
Contractual liabilities	40	308
Trade payables	5,978	4,485
Tax liabilities	44	42
Other non-financial liabilities	4,595	5,053
Total current liabilities and provisions	21,200	28,289
Total assets	119,068	105,789

As a result of the overall consolidated loss, the Group's equity decreased by kEUR -1,451 to kEUR 41,256, which corresponds to a reduction in the equity ratio to 35% as of 31 December 2020 (31 December 2019: 40%) due to the simultaneous significant increase in total assets. The ratio thereby stands at the lower end of the target range of 35–40%.

Long-term bank borrowings consist primarily of real estate loans with terms of 15 to 20 years, and fixed interest rates at the current low level. Non-current bank borrowings and from bonds issued increased from kEUR 22,840 to kEUR 47,234, primarily as a result of the first-time issuance of a Swiss franc bond in Switzerland in the context of additional requirements, including due to coronavirus. At the same time, current bank borrowings decreased by kEUR 7,485 from kEUR 11,404 to kEUR 3,919 due to the repayment of current account lines.

Non-current other financial liabilities reduced from kEUR 5,333 to kEUR 3,857. Within this item, the sale-and-finance-leaseback financing for the container fleet, in particular, declined as scheduled from kEUR 3,956 to kEUR 2,241. Non-current other non-financial liabilities decreased significantly by kEUR 1,122 from kEUR 6,547 to kEUR 5,425, primarily due to the scheduled discontinuation of special items for container profits. Development banks disbursed to va-Q-tec a total of kEUR 265 of funding for investments in the reporting period (previous year: kEUR 0), mainly for the Kölleda site. Other current financial liabilities decreased by a total of kEUR 433, from kEUR 6,867 to kEUR 6,434. Other current non-financial liabilities reduced on a net basis by kEUR 458 to kEUR 4,595 (previous year: kEUR 5,053). Within this item, again primarily the special item for deferred container profits reduced by kEUR 746, as scheduled, while, among other items, liabilities for employee bonuses and profit-sharing increased by kEUR 169 as a result of the significantly improved results.

Bank borrowings plus equipment leasing thereby accounted for 28% of total assets at kEUR 33,051 (previous year: kEUR 40,195, 38%). At the level of the UK reporting segment, further financing transactions were concluded as part of the expansion of the container fleet. These are allocated to bank borrowings. For this reason, the total volume of finance leases decreased by kEUR -1,987, from kEUR 5,943 in the 2019 year to kEUR 3,955 in the 2020 financial year. Current liabilities and provisions stood at kEUR 21,200 in the financial year under review, representing 18% of total equity and liabilities (previous year: kEUR 28,289, 27%). The Group's non-current liabilities and provisions amounted to kEUR 56,612 as of 31 December 2020, corresponding to 48% of total assets (previous year: kEUR 34,793; 33%). Trade payables rose to kEUR 5,978, compared with kEUR 4,485 in the previous year.

Overall statement on business progress

Taking into account both the positive and negative consequences of Covid-19, va-Q-tec looks back on the most successful financial year in the company's history. At the beginning of the pandemic, the company decided on and implemented various measures to protect its employees and partners, such as hygiene concepts and the possibility of working from home. Short-time working was not implemented within the operations of the globally operating Group, and hardly any restrictions were imposed. The Group also succeeded in servicing all customer orders with stringent cost control, despite restrictions on air freight capacity. The growth in revenue and earnings was maintained overall, and profitability improved further. Consolidated revenues continued to show double-digit

growth of 12% to kEUR 72,106. The strongest revenue growth by far was again achieved in thermal packaging, especially for healthcare applications. In total, the revenue share of the "Healthcare" target market amounts to 74%, and once again increased significantly compared to the same period of the previous year (69% revenue share). The Covid-19 crisis demonstrates the importance of stable and secure supply chains, especially in the pharmaceutical industry. va-Q-tec contributes to the fight against Covid-19 with thermal shipments, for example for drugs and test kits. This has also significantly increased the public perception of va-Q-tec as a reliable partner for the life science industry. Customer demand continues to be high in a market that is growing by almost 10% annually. As a technology and innovation leader, va-Q-tec benefits disproportionately from this. va-Q-tec is setting the trend towards passive, energy-efficient and CO₂-saving thermal transport solutions. The coronavirus crisis had made itself felt most clearly in the Products business (sale of VIPs and PCMs) in the first half of the year. However, this effect was almost offset in the second half of the year by accelerated demand for VIPs. Overall, the very solid financing structure and liquidity situation were further improved on a sustained basis.

EBITDA increased by 18% to kEUR 11,399. Measured in terms of total income, this results in a slightly improved margin of 14%. Measured in terms of revenues, this corresponds to a slightly improved margin of 16%.

EBITDA adjusted for currency effects reported a disproportionate increase of 27% to kEUR 12,220. The currency-adjusted EBITDA margin as a percentage of revenues improved significantly by 2 percentage points to 17%. Measured in terms of total income, this corresponds to an adjusted margin of 15%. Adjusted EBIT was almost at breakeven at kEUR -79. As a consequence, profitability adjusted for currency effects improved overall despite Covid-19. Net cash flow from operating activities reported a further improvement to kEUR 7,405.

2.3 FORECAST

2.3.1 Outlook

The following forecasts for the trend in management metrics were made under the assumption of the macroeconomic conditions for 2021 described above. They are also based on the expected positive growth rates in the market for VIPs and insulation materials overall. A fast growth dynamic is expected in the market for thermal packaging and services, particularly in the high-performance thermal packaging segment. These assumptions are underpinned by estimates produced by market research institutes IMARC and ResearchAndMarkets, which already expect growth in the low double-digit percentage range (see 2.2.1 Macroeconomic environment and Group-specific conditions). va-Q-tec expects to benefit to an above-average extent from the megatrends of energy efficiency, regulation of cold chains (product safety), and the globalization of value chains. Also taking into consideration the opportunities and risks entailed in operating activities as outlined in section 2.4.2, the company identifies growth levers in tapping new markets and application areas in terms of both products (e.g. last mile to the pharmacy, the utilization of rental containers for temperature-sensitive goods outside the pharmaceuticals industry, TempChain 4.0 applications, requirements relating to personalized drugs) and geography (new and further developed country markets such as Latin America and India).

Overall statement

For the 2021 financial year, va-Q-tec expects particularly strong revenue growth to a level of between EUR 90 million and EUR 100 million, depending on when and to what extent production levels for Covid-19 vaccines are ramped up and how widespread global distribution is realized.

As far as earnings before interest, tax, depreciation and amortization (EBITDA) are concerned, the company expects that for the 2021 financial year they will grow at a faster year-on-year rate than the rate of revenue growth, thanks to operating economies of scale and a changed product mix reflecting a growing proportion of higher-margin product groups. Accordingly, the company also expects a year-on-year stronger margin improvement compared to 2020.

The equity ratio is expected to remain constant in the 2021 financial year.

The number of employees will increase slightly in 2021 as a result of the international business expansion and the coronavirus-related increase in demand.

As a consequence, the Management Board of va-Q-tec AG expects above-average revenue growth compared with the target markets, accompanied by a further significant improvement in EBITDA profitability compared with 2020.

2.3.2 Forward-looking statements

This report includes forward-looking statements based on current assumptions and forecasts of the management of va-Q-tec AG. Such statements are subject to risks and uncertainties. These and other factors can lead the company's actual results, financial position, development or performance to differ significantly from the estimates provided here. The company assumes no obligation of any kind to update such forward-looking statements and adjust them to future events or developments.

This document is an English translation of an original German document; in the event of discrepancies, the original German version shall prevail and take precedence over the English translation of the document. For technical reasons, formatting differences may arise between the accounting documents contained in this document and those published due to legal requirements.

For reasons of better readability, the masculine form is predominantly used in this annual report. Nevertheless, the information refers to persons of any gender.

2.4 REPORT ON OPPORTUNITIES AND RISKS

2.4.1 Risk management and internal control system

Risk management va-Q-tec is based on three main aspects:

- a risk-aware corporate culture
- a formalized risk management system
- the internal control system

Anchoring risk awareness within the corporate culture

All successful business activity is connected with the conscious assumption of risks. It is crucial to the corporate governance of va-Q-tec that existing and newly added risks be handled in such a way to enable them to be managed actively, and incur as few losses as possible. Opportunities in a business sense should also be leveraged to enhance the company's value for all stakeholders. va-Q-tec enjoys a high degree of "risk awareness", which is communicated openly and transparently. From the Management Board's perspective, risk awareness that is translated into practice forms one of the most efficient instruments for handling risks. If employees are aware of risks and manage them professionally, the risk of losses being incurred because of risks materializing is diminished. Risks are disclosed and managed both proactively and transparently in such an environment. The establishment and company-wide communication of compliance guidelines also fosters greater awareness of compliant behavior. A compliance management system is in place that defines a code of conduct for both internal and external business activity. The compliance officer appointed in this context records, processes and reports to the Supervisory Board and its Audit Committee on all relevant compliance cases.

Risk management system

Risk management at va-Q-tec refers to the systematic engaging with risks, understood as negative events whose occurrence can incur losses and/or unforeseen costs within the company. To meet this requirement, internal and external risks for all segments and subsidiaries are systematically surveyed, measured, steered, managed and reported to the Management and Supervisory boards with the risk management system.

To supplement the existing internal and external control system, the Group management of va-Q-tec already implemented a further developed and formalized risk management system (RMS) in the 2016 financial year for this purpose. The RMS is based on the experience gained in recent years in identifying risks, e.g. the findings of the risk inventory compiled during the preparation of the risk inventories since 2017. At the meetings of the Management Board, the Audit Committee and the Supervisory Board, the developments and changes in existing risks and the emergence of new risks regularly form the subject of consultations. As in the previous year, the risk situation in the 2020 financial year was evaluated on the basis of two risk inventories as of the reporting date. In the interim, a regular exchange of information on the risk situation also occurred between those responsible for risk officers, risk managers, the Management Board and the Supervisory Board. Furthermore, the RMS was continuously further developed during the course of the 2020 financial year.

The aims of the risk management system at va-Q-tec are, as a matter of principle, to avoid, reduce and transfer risks, including through corresponding insurance cover, for example. Along with compliance with regulatory requirements, systematic risk management secures long-term and sustainable competitiveness. Such risk management also aims to identify potential going concern risks at an early stage. Risk management at va-Q-tec is not only a security instrument but also a management instrument. Moreover, risks that are identified offer new business opportunities and competitive advantages.

The RMS is based on a reporting process, a defined risk inventory and risk assessment during the course of the year. As part of the risk inventory, the respective decision-makers and experts within the specialist areas appraise all significant risks. Risks identified within the va-Q-tec Group are measured according to their potential loss and taking event probabilities into account. The risks identified as part of the risk analysis are categorized into risk classes according to their event probability and impact, by multiplying their respective effect by their respective event probability. The bandwidth of event probabilities and effects starts with "very low" and ends with "very high". Risks can thereby be differentiated and prioritized according to the resultant expected risk value. The specialist areas are required to identify and report new risks as part of risk appraisal during the course of the year. The information that is aggregated in this manner is summarized in risk files that are addressed and reported to the Management Board of the va-Q-tec Group. All risks – newly added as well as existing – are also to be monitored and reported continuously. Requisite countermeasures are launched quickly, and subsequently monitored.

New risks and significantly changed risks also form fixed agenda items at all regular management meetings, at all Management and Supervisory board meetings. They are discussed as part of results briefings between the Management Board of the va-Q-tec Group and the managers of the specialist areas. A review is also conducted as to whether risk minimizing measures that have already been taken are sufficient or whether further steps are to be initiated (such as in terms of ad hoc capital market communications). The Group's risk management system enables management to identify significant risks at an early stage. Initiate countermeasures and monitor their implementation. The auditor also examines the risk early warning system to ensure it is suited to the early identification of going concern risks.

Accounting-related internal control system

va-Q-tec operates a clear organizational, corporate, as well as control and supervision structure. Planning, reporting, controlling and early warning systems and processes exist across the company for the comprehensive analysis and management of earnings-relevant risk factors and going concern risks. The functions in all areas of the (Group) financial accounting process (e.g. financial accounting, financial bookkeeping and controlling) are clearly allocated. To date, va-Q-tec AG has refrained from operating a separate internal audit function due to the company's somewhat small dimensions and limited complexity. The internal audit tasks specified by the Audit Committee are implemented by qualified employees.

Use is mainly made of standard software (Navision) as far as installed financial systems are concerned. Standard consolidation software is used to prepare separate and consolidated financial statements. Here, existing structures have to be adjusted constantly to reflect the company's growth and changing conditions, such as capital market requirements.

The IFRS consolidated financial statements are prepared based on a standard reporting format for submission by all Group companies to the central administration in Würzburg. The validation processes applied there and additional plausibility checks ensure that the separate financial statements of the subsidiaries and of va-Q-tec AG are complete and correct.

The internal control and risk management system relating to the financial accounting process ensures that business transactions are recorded, processed and appraised correctly from a financial accounting standpoint, before being transferred to external financial reporting.

Payment transactions are performed electronically with embedded control mechanisms (two sets of eyes principle with a selected group of individuals). External service providers implement payroll transactions.

The organizational, corporate as well as controlling and supervisory structure determines the framework of the ICS. Clear statutory and in-house regulations and guidelines ensure a standard and proper financial accounting process. Check mechanisms within the areas directly involved in the financial accounting process, review by the internal control function, backup from the independent auditors and early risk identification by the risk management function are designed to ensure that (Group) financial accounting is free of error.

2.4.2 Operating risks

va-Q-tec measures risks based on their estimated event probabilities and potential effects on the company's financial position and performance, as well as reputation. Measurement of risk loss levels and event probabilities leads to the following examples of key risk indicators.

Event probability	Loss level in EUR	Risk indicator
very low	0 - 50,000	1
low	50,000 - 500,000	4
medium	500,000 - 1,000,000	9
high	1,000,000 - 5,000,000	16
very high	> 5,000,000	25

The Management Board applies the following scheme to measure the characteristic of a risk based on its risk indicator:

Risk indicators	Risk characteristic
0 - 5	Low
5 - 15	Medium
> 15	High

Overall, the following section presents risks after instituting countermeasures.

Risks in the value chain

As a manufacturing company, va-Q-tec has to make recourse to suppliers for intermediate products. va-Q-tec procures the main raw materials, consumables and intermediate products from a limited number of key suppliers. For some materials, only a few purchasing sources are available due to the specific characteristics. It is consequently the objective in the purchasing strategy of va-Q-tec to reduce dependency on individual or a few suppliers by qualifying and selecting new suppliers ("dual" or "multiple" sourcing). As in previous years, in 2020 the company continued to newly qualify and select second and third tier suppliers for intermediate products and materials. The company also consciously includes international suppliers in its selection in order to avoid regional dependency. A medium risk exists for va-Q-tec AG overall due to its limited number of suppliers.

Production stoppages and operational interruptions represent a further risk. The company depends on the continuous operation of its production systems in order to ensure that it can meet delivery requirements, especially to major industrial customers whose value chains are closely intermeshed with that of va-Q-tec. va-Q-tec manufactures at two geographically separate sites in Würzburg and Kölldeda. Stoppage at one site has no significant effects on the other site, where production can continue. Where possible and economically feasible, the individual production systems are also decoupled from each other through technical measures, so the stoppage of an individual system does not restrict the operation of other plants.

Besides the outage of existing systems, a risk can also arise in the insufficient overall capacity of the production systems. Along with productivity and efficiency improvements to the existing systems, the company's strong growth can also require early and forward-looking investment in capacity expansions, as the requisite plants sometimes require long delivery times. The company could nevertheless be surprised by sudden market developments, potentially being unable to satisfy all customer orders on the customers' requested dates. Through regular ad hoc reporting on new order trends between the sales areas and the Management Board, the company endeavors to identify such developments at an early stage and counteract them with appropriate measures. For example, such measures can temporarily consist of higher levels of reserve stocks, additional working shifts or the utilization of less appropriate plant for production, in order to bridge the time gap until additional capacities are commissioned. The Management Board also gauges the risk of long-lasting production outage from the aforementioned reasons as low, and also appraises the risk of insufficient capacity as low following the almost completed growth investments.

Rental services ("Serviced Rental") are particularly dependent on external logistics providers, which are not only responsible for operative processes at the network stations – for cleaning, warehousing and cooling processes, in other words – but also for transporting the preconditioned containers and boxes to the end-customers. This can lead to interruptions to operations, loss compensation claims and damage to reputation. Auditing and close-meshed controlling by the company's own logistics specialists serve to assure the quality of "Serviced Rental" for the pharmaceuticals industry globally. For this reason, the Management Board gauges this risk as medium.

Personnel risks

The company's operating activities and success depend on qualified managerial and key personnel. The company's very well trained personnel has acquired specific knowledge, skills and commercial contacts, in part through working for the company for many years. va-Q-tec counters the risk of losing such staff not only through measures aimed at employee loyalty, but also through diversifying the knowledge base through the workforce: key staff departures at va-Q-tec are avoided through employee development, diversification of the knowledge base within the company, and compensation in line with the market. Employee motivation and satisfaction is also boosted through performance-based compensation components, regular further training and the good corporate culture with the possibility to help shape disruptive business models. The risks to which va-Q-tec is exposed due to a change of key staff are appraised as medium level risks

Market and competition risks

The Group in its business activities has a strong focus on major industrial customers. This initially leads to a higher level of customer concentration. The company is constantly reducing the resultant risk through its growing number of customers, and diversification. Further protection exists thanks to a high level of customer loyalty, especially in the healthcare industry. The Group generally endeavors to establish and maintain a close, trusting and sustainable business relationship with all partners, employees and customers, and consequently gauges such risk as medium, and as a risk that can be reduced further.

The growth expectation in 2021 is based to a not insignificant extent on the thermal logistics for Covid-19 vaccines. Should their production ramp-up and global distribution not take place to the expected extent, or should va-Q-tec not be able to participate to the planned extent, this could have material effects on the company's expectations for revenue and earnings.

As a fast-growing company, va-Q-tec might potentially be unable to effectively advance and shape its growth. The Group has almost completed a period of heavy investment in personnel, sales activities, rental fleets, infrastructure and research and development, and is also adapting agilely to short-term opportunities in the wake of the coronavirus pandemic. To this extent, were actual growth to prove lower than planned, the risk exists of a negative effect on operating profits. As a matter of principle, the Management Board decides on such future investments with due objectivity and sense of proportion, and always based on specific expectations about market trends, as well as taking into consideration the ability to finance such investments. Insufficiently researched and/or excessively early investments are avoided as a consequence.

At the same time, significantly higher actual growth than planned generates the risk of a negative effect on the customer relationship due to non-compliance with delivery deadlines, delivery bottlenecks etc., and thereby also on the operating results. Here, too, sound judgement and the early identification of market developments through regular coordination with the sales areas constitute an important instrument to reduce risk, thereby identifying in good time the requirement for capacity expansions, with early decisions being made by the Management and Supervisory boards concerning the necessary investments in production plants and buildings. The Management Board assesses the residual risk as medium.

An intensification of the competitive environment also represents a significant risk. This can generate more pressure on prices and margins.

The company guards itself against such risk through two strategic levers, namely cost optimization measures and innovative products and services. Cost optimization includes, for example, increasingly automated production and the particularly efficient purchasing of intermediate products, with selective backwards integration to upstream value chain steps. The innovation topic includes research and development activities, which have already led to commercially successful, high-quality and particularly differentiated products since the company was formed. The company's range of products and services is distinguished from that of its competitors in many aspects: examples include the possibility to test the quality of the insulation in situ, or the production of VIPs with sections extracted and in three-dimensional form. Overall, the Group gauges the risk due to newly emerging competitors or a more aggressive competitive situation as medium.

Brexit

In order to prepare va-Q-tec continuously for the UK's withdrawal from the EU, which has meanwhile occurred, a cross-divisional and cross-border Brexit team was formed. Together with operating of the UK subsidiary va-Q-tec Ltd., the other Group companies, customers and logistics partners, Brexit risks have been and are being identified, and measures to avoid disruptions in the supply chain have been and are being developed. These include, for example, technical enhancements in Groupwide ERP systems in order to be able to respond to extended customs requirements on the system side. Brexit generates risks for our business, for example due to a possible weakening of the economy. Supply chains may also shift, and medicines or their preliminary products may no longer be transported to the UK but rather to France, Germany and the Netherlands. If the drugs or preliminary products originate in the USA, they still have to be transported across the Atlantic. va-Q-tec's TempChain service centers on the European mainland provide opportunities to deal with such changed logistics chains. Generally, less revenue is calculated in pounds sterling than costs are incurred in pounds sterling. If the pound depreciates against the euro, opportunities for va-Q-tec will arise as a consequence. Possible tax benefits could also create opportunities for va-Q-tec. Overall, va-Q-tec consequently considers Brexit-related risk to be low.

Coronavirus (Covid-19)

In contrast to other industries, va-Q-tec's supply chain is less designed for just-in-time processes. Short-term disruptions in the supply chain can be partially offset as a consequence. Current developments in the world in response to the spread of the novel coronavirus virus, such as factory closures and restrictions on public life continue to pose a specific risk as they have led, and are continuing to lead, to significant reductions in global economic growth and private consumption worldwide. In addition, the pandemic could result in the closure of Group factories and network stations if its own employees or partner companies in the supply chain are affected by quarantine measures. Events and trade fairs where va-Q-tec takes part are also impacted by these effects. Based on an assessment of the consequences, the Management Board views this risk in a differentiated manner and assesses it as a medium risk overall, taking into consideration the risks identified to date and experience with the pandemic in 2020. Increasing drug and vaccine deliveries due to the coronavirus outbreak may provide va-Q-tec with an opportunity to enjoy greater demand in the healthcare and logistics area. As a consequence, a medium risk due to coronavirus (Covid-19) remains in the overall picture. Current developments and restrictions are being closely monitored on an ongoing basis together with our employees, customers, suppliers and partners.

Cyclical target markets

Especially the target markets of Appliances and Food, Technics and Industry, and Building are dependent on the economic situation. The Management Board gauges this risk as low, as the underlying drivers of va-Q-tec's business (increasing regulation and energy efficiency) are less susceptible to economic cycles.

Financial risks

va-Q-tec's central finance department utilizes revolving liquidity plans in order to monitor liquidity risk. The Group was, and is, solvent at all times. Interest risks deriving from existing long-term lending facilities are partly hedged through interest-rate swaps. The Group is exposed to interest-rate risk on its short-term overdrafts, although such risk is currently unlikely to materialize.

va-Q-tec is an internationally active company whose assets, liabilities, revenues, costs and profits are denominated in various currencies, with the US dollar (USD), the British pound (GBP), the Swiss franc (CHF) and the South Korean won (KRW) currently representing the most important foreign currencies. Currency risks are limited due to the fact that most invoicing occurs in euros (the company's functional currency) as well as by way of the company's internationalization. Significant changes in exchange rates could nevertheless have material effects on va-Q-tec's financial position, net assets position and results of operations, which are reported in euros.

The currency risks arising from the issue of the CHF bond were hedged by derivative hedging transactions (cross-currency swaps/CCS) for the portion of CHF 24 million over the term of the bond. The CCS thereby eliminate the EUR-CHF currency risk resulting from the interest and redemption payments for the entire term of the bond for the secured portion.

Overall, the Group gauges risks in its financial area as medium.

Liquidity was secured at all times in the 2020 financial year and was adequate for the needs of a rapidly growing company. A comfortable level of unutilized overdraft lines existed as of the reporting date. For this reason, the Management Board gauges liquidity risk as low at present.

In an overall view of risks, va-Q-tec is predominantly exposed to general business risks (performance risks) and financial risks. The Management Board does not identify any individual or aggregated risks as going concern risks. The company is positioned both strategically and financially to leverage the business opportunities on offer to it.

2.4.3 Future development opportunities

va-Q-tec possesses extensive knowledge relating to compliance with rules and regulations in relevant countries and regions. Laborious and expensive qualification measures at healthcare industry customers – along with corresponding quality assurance and process documentation – deliver the requisite expertise for the successful implementation of packaging solutions for customers. Only a few companies are currently capable of successfully combining the necessary characteristics of thermal packaging within a complex, reliable and at the same time user-friendly offering. With its technology platform, va-Q-tec is one of the few companies worldwide to meet the high requirements. Increasingly complex regulation makes it necessary for a company to constantly further develop itself and research new technologies. In such an environment, high barriers to entering the market for thermal packaging are beneficial for va-Q-tec.

The coronavirus crisis impressively demonstrates the importance of stable and secure supply chains. This is particularly true for the pharmaceutical industry, as the shipment of numerous medicines requires reliable shipment solutions with stable temperatures. In view of the growing appreciation for our temperature-controlled logistics solutions, we consequently expect additional demand impulses in the medium term – especially from the pharmaceutical industry – even after the coronavirus crisis has been overcome.

Demand for VIPs is also increasing in the other target markets as a result of regulations: customers in the “Technology and Industry” target market are currently facing a change in the regulatory environment in important core markets. Like many household appliances, hot water tanks for heating systems are now subject to the “Ecodesign Directive”, i.e. their energy efficiency is made transparent to the end consumer via a labelling system in energy efficiency classes. Moreover, equipment with high energy consumption and a low energy efficiency class is excluded from the European domestic market. Customers of va-Q-tec currently use VIPs mainly to position premium boilers in the highest efficiency classes. In future, and with more stringent regulation, we believe VIP-insulated boilers from the premium segment will also encounter demand in the mass market.

New markets

Since it was founded, va-Q-tec has worked on developing new products and services that open up additional markets and application possibilities for vacuum insulation. Along with basic research and product predevelopment – such as VIPs for entirely new temperature ranges – examples here include food logistics and the mobility area.

With va-Q-med thermal boxes, va-Q-tec can ensure secure logistics without temperature deviations directly to pharmacies. In Germany alone, almost 20,000 pharmacies need to be supplied with shipment and temperature logistics in accordance with “Good Distribution Practices”. With the va-Q-med box, va-Q-tec has the opportunity to play a crucial role in shaping the future of pharmacy and last-mile logistics. This also offers opportunities in the area of logistics for online pharmacies.

In personalized medicine, each patient should be treated with extensive consideration of individual circumstances, beyond the functional diagnosis of disease. This also includes the ongoing adaptation of therapy to reflect the progress of recovery and gene-based medications. Such forms of therapy will become increasingly important in the future. At the same time, they are often very sensitive to temperature. va-Q-tec’s particularly temperature-stable and high-performance thermal boxes and containers are especially suitable for such medications.

To date, both va-Q-tec’s existing thermal packaging and thermal packaging in development, as well as its “Service Rental”, are designed for deployment almost exclusively in the healthcare industry. However, a trend to increasingly temperature-sensitive goods and manufacturing processes is now identifiable in many industries. As a consequence, growth opportunities arise from the development of new application areas with va-Q-tec technologies, such as food transport and the opto-electronics industry.

In the e-commerce area, start-ups and large international providers are currently developing, at an accelerated pace, new business models for the delivery of food ordered online directly to the end consumer, including due to the coronavirus-related lockdown measures. Shipments of easily perishable food to the end-customer are expected to be regulated even more stringently in the future. va-Q-tec’s high-performance thermal packaging are very well suited to such shipments.

The target market of mobility also offers strong growth opportunities for va-Q-tec: in the future, thermal management in vehicles with both conventional and electric engines will become increasingly significant. CO₂ can be saved in conventional vehicles through insulation measures in vehicle cabins and through storing heat energy from the cooling cycle. In vehicles with electric engines, range depends on the optimal working temperature of the vehicle battery as well as the electricity consumed by peripheral functions, such as heating and interior air conditioning. In va-Q-tec's opinion, vehicle manufacturers and their suppliers could extend the range of their vehicles by using vacuum insulation. In the building sector, the opportunity arises to benefit from the situation in the construction cycle, which remains good, along with ever more stringent energy efficiency standards for new buildings and renovations. With the va-Q-med box, va-Q-tec has the opportunity to play a crucial role in shaping the future of pharmacy and last-mile logistics.

Along with the aforementioned market opportunities in terms of products and services, the Management Board also identifies considerable future growth opportunities in geographic expansion. The internationalization of business activities and the company's entry into new global markets open up major sales opportunities for the Group. Equally, its international presence can be exploited to tap new sources of raw materials, consumables and intermediate products, and for efficient purchasing.

Innovative services and offerings

In the Products division (vacuum insulation panels), work was carried out on the further development of the existing portfolio and the new development of a panel class for medium and high temperatures. Novel high-temperature panels can be used wherever temperatures of up to approximately 400°C prevail on the one hand, and where very good insulation is required on the other, e.g. ovens for industry and food. With such VIPs, va-Q-tec can revolutionize the market for high-temperature insulation.

With the stackable "va-Q-tray", a thermal packaging system, food can be transported in such a way that it remains warm, cold or frozen for hours, or in some cases days. The temperature holding time can optionally be extended by PCM rechargeable batteries. With the va-Q-tray, for example, bakery branches can be supplied efficiently with fresh produce: in contrast to existing styrofoam systems, the va-Q-tray meets the highest hygiene and temperature chain requirements, can be used universally (e.g. as a portable refrigerator), and as a combinable system with non-insulated standard containers. In addition to hygiene benefits, this also results in cost savings as additional refrigerated vehicles can be dispensed with.

In the future, the innovative combination of hardware and IT solutions – referred to as "TempChain 4.0" – will become ever more important. Such new services and offerings, consisting of intelligent boxes, fleet data management, live tracking of temperature data, and predictive analysis in the area of temperature-controlled shipments can be offered to customers with a premium.

By way of summary, the Management Board is of the opinion that the opportunities pertaining to the development and growth of the business outweigh the aforementioned risks.

2.4.4 Risk reporting on the deployment of financial instruments

The Group is exposed to various financial risks due to its operating activities. The Group's risk management aims to minimize the potential negative effects on the Group's financial position. Financial instruments are only deployed to a limited extent at va-Q-tec.

In the German reporting segment, almost 85% of sales and approximately 95% of purchases were processed in euros. In the UK reporting segment, some revenues were generated in US dollars. The costs attributable to such revenues are largely also incurred in US dollars. Risk-reducing natural hedging consequently exists for the US dollar. Significant foreign currency losses could nevertheless occur in the event of stronger exchange rate fluctuations. For this reason, the Management Board gauges the remaining currency risk relating to the US dollar as medium.

Interest rate hedging instruments continue to be in place in order to hedge interest payments on long-term loans at a standard market interest rate level. The cross-currency swap concluded to hedge the currency risks resulting from the CHF bond is shown as hedge accounting in accordance with IFRS. The real estate loans taken out in 2018 were largely financed on a long-term basis with fixed interest rates over the term on the basis of the current, low interest level. No interest-rate hedge was arranged for existing variable interest overdrafts.

No separate financial instruments are held to hedge against default on receivables. The risk of defaults on receivables is relatively low due to the high credit standing of the customer base. To further improve liquidity, the factoring implemented in va-Q-tec AG in 2019 was continued in 2020, and additionally introduced at the UK subsidiary va-Q-tec Ltd. Reverse factoring is currently only implemented for a small number of customers with long receivables terms (e.g. in Italy) as is customary in the market.

Above and beyond the financial instruments described here, the Group holds no further financial instruments that are important for appraising the Group's position or prospective development. Please refer to the sections on "Financial instruments" and "Risk management" in sections 4.4 and 4.6 of the notes to the consolidated financial statements for more details.

2.5 COMPENSATION REPORT

va-Q-tec reports on compensation in accordance with the German Commercial Code and international accounting standards. Compensation comprises both basic and variable components. With the reform of the German Corporate Governance Code ("DCGK 2020"), the recommendations on the compensation of the Management Board were modified significantly, with the result that the current compensation scheme does not comply with the new recommendations in some cases. The Supervisory Board is currently revising the compensation scheme with regard to the new requirements under stock corporation law for the compensation scheme for the Management Board, and is also examining whether and to what extent the new recommendations of the Code on Management Board compensation should be taken into account. No new contracts or extensions of current service contracts with members of the Management Board have been agreed since the DCGK 2020 came into force; furthermore, current service contracts with members of the Management Board are subject to grandfathering.



Management Board

In accordance with the requirements of the German Stock Corporation Act (AktG), the compensation of the Management Board members consists of both basic and variable elements. Variable compensation comprises a cash component paid as an annual bonus. All compensation elements are appropriate both individually and in their entirety. The Supervisory Board concerns itself intensively with the appropriateness and standard nature of Management Board compensation, taking into account all criteria set out in Section 87 of the German Stock Corporation Act (AktG), such as the individual Management Board members' tasks, personal performance as well as the financial situation, performance and future prospects of va-Q-tec AG.

In March 2017 and again in December 2019, external compensation experts confirmed to the Supervisory Board the fundamental appropriateness of the Management Board compensation. The basic compensation corresponds to the annual basic salary; in addition, both Management Board members made use of a company car. D&O insurance is in place for all va-Q-tec Group boards. The Management Board members themselves bear the cost of the 10% deductible.

In the 2018 financial year, a compensation scheme was defined for the members of the Management Board, in which the long-term component of bonuses is to be anchored. This compensation scheme is valid for all financial years from 1 January 2018. The current Management Board contracts were adjusted accordingly as of the 2018 financial year. The new compensation scheme was also examined by external experts, and consequently complies with the requirements of the German Corporate Governance Code in the version date 7 February 2017. In developing the system, the Supervisory Board took as its starting point the basic features of the previous compensation scheme, which was still considered to be reasonable, and aligned it to even greater extent to sustainable corporate development and growth. Consequently, the annual variable compensation is now divided into a short-term and a long-term variable compensation component. For both, a bonus target amount is defined for 100% target achievement. Both components are either limited on the upside or can reduce to zero. The short-term variable compensation is based on three key figures, each of which is given a one-third weighting: revenue, Group EBITDA and return on capital employed (ROCE). The Supervisory Board sets targets for each of these parameters, with the entry hurdle for receiving any short-term variable compensation at all being 80% of the respective target values. In the target

achievement range between 80% and 115%, certain factors are determined for the calculation of the bonus, whereby the maximum factor is always 1.3 and the respective compensation component is thereby capped. The exception is the EBITDA component of short-term variable compensation, where the factor can increase to 1.5 under certain circumstances. The long-term variable compensation is based on the performance of the company's share price between two comparison periods. Here, too, an entry hurdle applies in such a way that a positive price performance of at least 5% must have occurred. In addition, a cap applies if the share price performance exceeds 15%. Of any gross compensation received as long-term variable compensation, the Management Board member must invest at least 50% in the company's shares (as evidenced in a custody account), which are subject to a four-year lock-up period. Compensation amounts above the cap are not paid out but credited – again up to a certain maximum amount – to a virtual sustainability bonus account of the Management Board member and can be used within certain limits to offset stock market price increases in relevant comparison periods which are below 10% but above 5%. Portions of the long-term variable compensation resulting from such compensation are to be invested exclusively in shares of the company that are subject to the aforementioned vesting period.

The Supervisory Board approves the annual Group targets to measure the variable cash component. It also sets the targets.

The Management Board members' contracts include no separate payments for the instance of a termination of their contracts due to a change of control.

The total compensation of the Management Board amounted to kEUR 736 in the 2020 reporting year (previous year: kEUR 659). The basic compensation amounted to kEUR 470 (previous year: kEUR 416); this also includes payments for benefits in kind such as a company car. Variable cash compensation stood at a total of kEUR 250 (previous year: kEUR 228). Defined contribution pension commitments have existed for the Management Board members since 2014. To this end, kEUR 16 (previous year: kEUR 15) was paid into an external, congruently reinsured pension fund in the year under review. For this reason, no provisions for pensions have been formed on the balance sheet. Accordingly, fixed compensation for the Management Board including benefits in kind and pension fund contributions accounts for 66% of total compensation (previous year: 65%).

No loans or advances were granted to members of the Management Board.

kEUR	Management Board compensation 2020	Management Board compensation 2019
Fixed compensation	442	382
Ancillary payments	28	34
One-year variable compensation	41	47
Multi-year variable compensation	209	181
Defined contribution plans	16	15
Compensation, total	736	659

In accordance with the AGM resolution dated 31 May 2016, va-Q-tec discloses the total compensation of the Management Board, but not the individual shares for the individual members. This practice complies with section 314 (1) No. 6, 286 (5) of the German Commercial Code (HGB).

Supervisory Board

The AGM sets Supervisory Board compensation. The compensation of the Supervisory Board of va-Q-tec AG is regulated in Section 14 of the bylaws of va-Q-tec AG.

With effect from 1 September 2020, the compensation of the members of the Supervisory Board was revised as follows by resolution of the Annual General Meeting on 14 August 2020: Each member of the Supervisory Board who is not the Supervisory Board Chair or Deputy Supervisory Board Chair receives monthly fixed compensation of EUR 2,200 ("fixed compensation"). The Supervisory Board Chair continues on an unchanged basis to receive twice the fixed compensation and the Deputy Supervisory Board Chair, also on an unchanged basis, continues to receive 1.5 times this amount. To the extent that he or she is not also the Supervisory Board Chair or Deputy Supervisory Board Chair, the Audit Committee Chair continues on an unchanged basis to receive 1.5 times the fixed compensation. To the extent that he or she is not also the Supervisory Board Chair or Deputy Supervisory Board Chair, the chair of a Supervisory Board committee that is not the Audit Committee continues on an unchanged basis to receive 1.25 times the fixed compensation. If a member of the Supervisory Board is the chair of several Supervisory Board committees, he or she receives only the compensation for one committee, and specifically for the committee where the highest compensation is paid to the Supervisory Board member.

The revised version of the Supervisory Board compensation includes an increase for each Supervisory Board member in the fixed monthly compensation for Supervisory Board activities from the previous EUR 1,200 to EUR 2,200. In return, all attendance fees for participation in Supervisory Board meetings are waived. These changes to the Supervisory Board compensation scheme are intended to ensure that the greater demands made of the Supervisory Board members are taken into account, as well as their increased scope of activities and constantly growing responsibilities. At the same time, the adjustment of the fixed compensation scheme is intended to compensate for the loss of attendance fees.

The Supervisory Board received compensation of kEUR 161 for the 2020 reporting year (previous year: kEUR 155). This sum includes the reimbursement of expenses incurred by each member of the Supervisory Board. The company bore the cost of the premium for the D&O insurance also concluded for the Supervisory Board members in the 2020 financial year. By AGM resolution of 19 June 2017, a deductible for the Supervisory Board members to be borne personally in relation to the D&O insurance was implemented in an amount of kEUR 100 for each member. The Supervisory Board members themselves bear the cost of the deductible. Consultancy and other services in an amount of kEUR 44 (previous year: kEUR 40) were also compensated. These were commissioned and provided to accompany the Power20+ program and the financing.

Financial year 2020

in EUR	Compensation	Expenses	Consulting
Dr. Gerald Hommel	41	2	-
Winfried Klar	32	5	25
Uwe Andreas Krämer	18	-	-
Dr. Eberhard Kroth	23	1	19
Uwe Lamann	13	1	-
Dr. Barbara Ooms-Gnauck	23	2	-
Total	150	11	44

Financial year 2019

in EUR	Compensation	Expenses	Consulting
Dr. Gerald Hommel	36	2	-
Winfried Klar	29	5	15
Uwe Andreas Krämer	15	-	-
Dr. Eberhard Kroth	17	1	25
Uwe Lamann	26	3	-
Dr. Barbara Ooms-Gnauck	19	2	-
Total	142	13	40

2.6 TAKEOVER LAW DISCLOSURES AND NOTES PURSUANT TO SECTION 315A HGB

The following section presents the disclosures as of 31 December 2020 pursuant to Article 9 (1) lit. c) (ii) of the Council Regulation (EC) No. 2157/2001 on the Statute for a European company (SE) (SE-VO), Section 22 (6) of the Act to Implement Council Regulation (EC) No. 2157/2001 on the Statute for a European company (SE) (SEAG) in combination with Section 289a, Section 315a (1) of the German Commercial Code (HGB). Matters relating to Section 289a (1), Section 315a (1) HGB, which are not fulfilled at va-Q-tec AG, are not related. The following subsection provides an insight into the takeover law relationships as of the 31 December 2020 balance sheet date, and explains them in greater detail.

2.6.1 Composition of the subscribed share capital

The share capital of va-Q-tec AG amounts to EUR 13,089,502.00, and is divided into 13,089,502 ordinary registered shares. The share capital is fully paid in. The shares carry the same rights and obligations. Each share grants one vote at the General Meeting of the shareholders. Exceptions to this include shares the company itself holds (treasury shares), from which no rights accrue to va-Q-tec AG, such as the right to vote at the Shareholders' General Meeting. As of the balance sheet date, va-Q-tec AG held 13,566 treasury shares (previous year: 13,566). For information about changes in the treasury share position, please refer to the notes to the consolidated financial statements in this annual report.

2.6.2 Restrictions affecting voting rights or the transfer of shares

The shareholders in the share pool have undertaken to exercise their voting rights uniformly. The Management Board is not aware of any further currently valid restrictions affecting voting rights or the transfer of shares.

2.6.3 Interests in the share capital exceeding 10 % of the voting rights

Pursuant to the German Securities Trading Act (WpHG), all investors reaching, exceeding or falling short of voting rights thresholds pursuant to Section 21 WpHG through purchase, sale, or in another manner, are required to report such transactions to the respective company and to the German Federal Financial Supervisory Authority (BaFin). To this extent, the Management Board of va-Q-tec AG is aware of the following individuals and companies whose interests exceed 10 % of the voting rights:

Name	Country	Number of shares	Interest in the share capital
Share pool of the families of Dr. Joachim Kuhn and Dr. Roland Caps	GER	3,275,000	25.02%
TOTAL		3,275,000	25.02%

Rules concerning the appointment and recall from office of Management Board members

Pursuant to Section 84 of the German Stock Corporation Act (AktG), and the bylaws of va-Q-tec AG, the Supervisory Board appoints the members of the Management Board. Pursuant to the company's bylaws, the Management Board consists of one or several individuals. The Supervisory Board determines the number of Management Board members. If the Management Board consists of several members, Management Board resolutions are passed with a simple voting majority. If the Supervisory Board has appointed a Management Board Chair and if the Management Board consists of at least three members the vote of the Management Board Chair is decisive given an equal number of votes on a resolution.

Rules concerning bylaw amendments

Amendments to the bylaws require a resolution of the general meeting of shareholders. Resolutions by the general meeting of shareholders require a simple voting majority unless a greater majority is imperative by law.

Management Board authorizations relating to the issuing and repurchase of shares

va-Q-tec AG has both approved share capital and contingent share capital as follows:

Approved share capital

By resolution of the Annual General Meeting of 14 August 2020, the Management Board is authorized, with the approval of the Supervisory Board, to increase the company's share capital by up to a total of EUR 6,544,751.00 up to and including 13 August 2025 (Approved Capital 2020/1), whereby shareholders' subscription rights may be excluded.

Contingent capital

Pursuant to Section 6.5 of the company's bylaws, the share capital is conditionally increased by EUR 6,500,000 through issuing up to 6,500,000 new ordinary registered shares (Contingent Capital 2020/1). Contingent Capital 2020/1 serves exclusively to grant shares upon the exercise of conversion or warrant rights, or upon fulfilment of conversion obligations, to the holders or creditors of convertible bonds, bonds with warrants and/or participating bonds (or combinations of such instruments) (collectively "bonds") issued on the basis of the authorization resolution of the Annual General Meeting of 14 August 2020 under agenda item 7 letter b).

Significant agreements in the case of a change of control due to a takeover offer and compensation agreements in the case of a takeover offer

No significant agreements on the part of the company exist that are subject to a change of control following a takeover offer.

2.7 CORPORATE GOVERNANCE STATEMENT

Besides relevant disclosures concerning corporate governance practice as well as a description of the working methodologies of the Management and Supervisory boards, the corporate governance section, as a part of the annual report, also includes the statement of conformity pursuant to Section 161 of the German Stock Corporation Act (AktG). The corporate governance section together with the statement of conformity pursuant to Section 161 AktG is also available on the Internet at www.va-Q-tec.com in the Investor Relations section.



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3 CONSOLIDATED FINANCIAL STATEMENTS OF VA-Q-TEC AG FOR THE 2020 FINANCIAL YEAR

CONSOLIDATED INCOME STATEMENT

kEUR	Notes	2020	2019
Revenues	4.1.1	72,106	64,667
Change in inventories		978	-295
Work performed by the company and capitalised	4.1.2	6,379	3,947
Other operating income	4.1.3	4,669	4,498
Total Income		84,132	72,817
Cost of materials and services	4.1.4	-32,751	-28,993
Gross profit		51,381	43,824
Personnel expenses	4.1.5	-26,111	-22,389
Other operating expenses	4.1.6	-13,871	-11,762
EBITDA		11,399	9,673
Depreciation, amortization and impairment losses	4.1.7	-12,299	-12,232
Earnings before interest and tax (EBIT)		-900	-2,559
Result from equity accounted investments		-	-68
Result from fair value valuation of investments	4.1.8	647	1,771
Finance Income		12	16
Finance expenses		-1,271	-1,079
Net financial result	4.1.9	-1,259	-1,063
Earnings before tax (EBT)		-1,512	-1,919
Income tax	4.1.10	77	-647
Net income		-1,435	-2,566
Consolidated net income attributable to owners of va-Q-tec AG		-1,435	-2,566
Earnings per share - basic / diluted in EUR	4.1.11	-0.11	-0.20

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

kEUR	Notes	2020	2019
Net Income		-1,435	-2,566
Consolidated other comprehensive income	4.2.2.1		
Currency translation differences		129	13
Derivative financial instruments			
Unrealized gains/losses (pre-tax)		-208	-
Taxes on unrealized gains/losses and on reclassifications		63	-
Derivative financial instruments (after tax)		-145	-
Total other comprehensive income that will be reclassified to profit or loss		-16	13
Consolidated total comprehensive income		-1,451	-2,553
Consolidated total comprehensive income attributable to owners of va-Q-tec AG		-1,451	-2,553

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Assets

kEUR	Notes	31/12/2020	31/12/2019
Non-current assets			
Intangible assets	4.2.1.1	2,955	2,233
Property, plant and equipment	4.2.1.2	69,636	68,879
Investment property	4.2.1.3	1,614	1,614
Contract assets	4.2.1.8	73	158
Financial assets	4.2.1.4	3,503	2,474
Other non-financial assets	4.2.1.5	1,056	1,100
Deferred tax assets	4.1.11	2,471	2,319
Total non-current assets		81,308	78,777
Current assets			
Inventories	4.2.1.6	11,615	10,676
Trade receivables	4.2.1.7	6,532	6,666
Other financial assets	4.2.1.4	927	586
Current tax assets		3	230
Other non-financial assets	4.2.1.5	1,549	1,364
Cash and cash equivalents	4.2.1.9	17,134	7,490
Total current assets		37,760	27,012
Non-current assets held for sale		-	-
Total assets		119,068	105,789

Equity and liabilities

kEUR	Notes	31/12/2020	31/12/2019
Equity	4.2.2.1		
Issued share capital		13,090	13,090
Treasury shares		-54	-54
Additional paid-in capital		46,158	46,158
Consolidated total other comprehensive income		-42	-26
Retained earnings		-17,896	-16,461
Total equity		41,256	42,707
Non-current liabilities			
Provisions	4.2.2.2	96	73
Bonds issued	4.2.2.3	22,064	-
Bank borrowings	4.2.2.4	25,170	22,840
Other financial liabilities	4.2.2.5	3,857	5,333
Other non-financial liabilities	4.2.2.6	5,425	6,547
Total non-current liabilities		56,612	34,793
Current liabilities			
Provisions	4.2.2.2	190	130
Bank borrowings	4.2.2.4	3,919	11,404
Other financial liabilities	4.2.2.5	6,434	6,867
Liabilities from contracts with customers	4.2.2.8	40	308
Trade payables	4.2.2.7	5,978	4,485
Tax liabilities		44	42
Other non-financial liabilities	4.2.2.6	4,595	5,053
Total current liabilities		21,200	28,289
Total equity and liabilities		119,068	105,789

CONSOLIDATED STATEMENT OF CASH FLOW

kEUR	2020	2019
Cash flow from operating activities		
Net income	-1,435	-2,566
Current income taxes recognised income statement	25	3
Income taxes paid	-17	-161
Net finance costs recognised income statement	1,259	1,063
Interest paid	-1,147	-1,055
Depreciation on contract assets	126	70
Non-cash losses from equity accounted investments	-	68
Non-cash gain from fair value valuation of investments	-647	-1,771
Depreciation, amortisation and impairment losses	12,299	12,232
Gain/loss from disposal of non-current assets	-518	-555
Change in other assets	-1,311	-644
Change in other liabilities	1,037	1,702
Change in provisions	83	61
Other non-cash expenses or income	-3,009	-2,639
Cash flow from operating activities before working capital changes	6,745	5,808
Change in inventories	-981	333
Change in trade receivables	24	920
Change in trade payables	1,617	127
Net cash flow from operating activities	7,405	7,188
Cash flow from investing activities		
Payments for investment in intangible assets	-1,257	-1,162
Proceeds from disposal of property, plant and equipment	830	1,037
Payments for investments in property, plant and equipment	-11,351	-8,746
Payments for investments in contract assets	-41	-71
Net cash flow from investing activities	-11,819	-8,942
Cash flow from financing activities		

kEUR	2020	2019
Proceeds from bonds	23,059	-
Payments for bonds transaction costs	-1,099	-
Proceeds from bank loans	13,328	9,375
Repayments of bank loans	-18,413	-9,270
Proceeds from government grants	265	-
Payments for leases liabilities	-3016	-3,077
Net cash flow from financing activities	14,124	-2,972
Change in cash and cash equivalents before exchange rate effects	9,710	-4,726
Effect of exchange rate changes on cash and cash equivalents	-66	62
Net change in cash and cash equivalents	9,644	-4,664
Cash and cash equivalents at start of period	7,490	12,154
Cash and cash equivalents at end of period	17,134	7,490

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

kEUR	Issued share capital	Treasury shares	Additional paid-in capital
01/01/2019	13,090	-54	46,158
Net income	-	-	-
Consolidated other comprehensive income	-	-	-
Consolidated total comprehensive income	-	-	-
31/12/2019	13,090	-54	46,158
01/01/2020	13,090	-54	46,158
Net income	-	-	-
Consolidated other comprehensive income	-	-	-
Consolidated total comprehensive income	-	-	-
31/12/2020	13,090	-54	46,158

	Retained earnings	Cumulative other comprehensive income		Equity attributable to parent company owners	Total equity
		Currency translation reserves	Derivative financial instruments		
	-13,895	-39	-	45,260	45,260
	-2,566	-	-	-2,566	-2,566
	-	13	-	13	13
	-2,566	13	-	-2,553	-2,553
	-16,461	-26	-	42,707	42,707
	-16,461	-26	-	42,707	42,707
	-1,435	-	-	-1,435	-1,435
	-	129	-145	-16	-16
	-1,435	129	-145	-1,451	-1,451
	-17,896	103	-145	41,256	41,256

1 GENERAL INFORMATION

1.1 INFORMATION ABOUT THE COMPANY

The company va-Q-tec AG, which has its headquarters at Alfred-Nobel-Strasse 33, 97080 Würzburg, Germany, is entered in the commercial register of Würzburg under commercial register sheet number 7368. Along with va-Q-tec AG itself, the consolidated financial statements of va-Q-tec AG also include its subsidiaries (hereinafter also referred to as “va-Q-tec”, the “va-Q-tec Group” or the “company”). va-Q-tec is a technologically leading provider of highly efficient products and solutions in the thermal insulation area. The company develops, produces and markets innovative products for reliable and energy-efficient temperature control and insulation – vacuum insulation panels (“VIPs”) and phase change materials (“PCMs”). Furthermore, va-Q-tec produces passive thermal packaging systems (containers and boxes) through optimally combining of VIPs and PCMs. To implement temperature-sensitive logistics chains, va-Q-tec offers, within a global partner network, the rental of containers and boxes that meet demanding thermal protection standards. Along with Healthcare & Logistics as the main market, va-Q-tec addresses the following further markets: Appliances & Food, Technics & Industry, Building, and Mobility.

These consolidated financial statements of va-Q-tec for the financial year from 1 January to 31 December 2020 were approved for publication by the Management Board on 26 March 2021.

1.2 BASIS OF PREPARATION OF THE FINANCIAL STATEMENTS

va-Q-tec AG is the ultimate parent company of the va-Q-tec Group and consequently prepares the consolidated financial statements for the smallest and largest group of companies. va-Q-tec AG has been listed on the stock market since 30 September 2016 and has consequently been capital market oriented since this date. Despite falling short of the size criteria pursuant to Section 293 of the German Commercial Code (HGB), it is obligated pursuant to Section 293 (5) HGB to prepare consolidated financial statements as a consequence. va-Q-tec prepares its consolidated financial statements as of 31 December 2020 based on International Financial Reporting Standards (IFRS), as applicable in the EU, and the commercial law regulations to be applied additionally pursuant to Section 315e (1) HGB. The term IFRS also comprises all still valid International Accounting Standards (IAS) as well as all interpretations and amendments of the International Financial Reporting Standards Interpretations Committee (IFRS IC) – formerly the International Financial Reporting Interpretations Committee (IFRIC) – and of the former Standing Interpretations Committee (SIC).

These consolidated financial statements were prepared on the basis of historical cost. Exceptions to this include derivative financial instruments and investments that were recognised at fair value on the reporting date. The corresponding note is provided as part of the respective accounting policies.

Historical cost is generally based on fair value, which represents the consideration rendered in exchange for the asset.

Fair value is the price that would be received to sell an asset or be paid to transfer a liability in an orderly transaction between market participants at the measurement date. This applies irrespective of whether the price is directly observable, or has to be estimated by applying a valuation method.

The fair value that is to be determined for certain disclosures and calculation methods is not always available as a market price. Frequently, it has to be calculated on the basis of various measurement parameters. Depending on the availability of observable parameters and the significance of such parameters for fair value measurement overall, the fair value is allocated to one of the levels 1, 2 or 3 (fair value hierarchy). This allocation is implemented on the following basis:

- Level 1 inputs comprise quoted prices (unadjusted) on active markets for identical assets or liabilities to which va-Q-tec can access at the measurement date.
- Level 2 inputs comprise inputs other than Level 1 quoted prices, for which the value of the asset or liability is either directly observable, or can be derived indirectly from other prices.
- Level 3 inputs are unobservable inputs for the asset or liability.

As a rule, the Group classifies assets and liabilities as current if they will be realised or settled prospectively within twelve months after the reporting date. If assets and liabilities comprise both a current and a non-current element, they are divided into their term components and reported as current and non-current assets or liabilities in accordance with the balance sheet structure.

The consolidated income statement is prepared according to the nature of expense method.

The consolidated financial statements are prepared in thousands of euros (kEUR), which is both the functional and the reporting currency of va-Q-tec. Differences of up to one unit (EUR, %) relate to arithmetic rounding differences.

1.3 EFFECTS OF NEW ACCOUNTING STANDARDS

The va-Q-tec Group has applied uniform accounting methods for all the periods presented in its IFRS consolidated financial statements. These comply with IFRS entailing mandatory application in the EU in the 2020 financial year.

The accounting policies applied correspond to those applied in the previous year, as a matter of principle.

The following new standards and interpretations or amendments to existing standards and interpretations required mandatory application for financial years commencing from 1 January 2020, and were applied for the first time by the company.

Standard	Title	Mandatory application for financial years commencing from
Amendments to IFRS 3	Definition of a Business	1 January 2020
Amendments to IAS 39, IFRS 7 and IFRS 9	Interest Rate Benchmark Reform	1 January 2020
Amendments to IFRS 16	Amendment relating to Covid-19-Related Rent Concessions	1 January 2020
Amendments to IAS 1 and IAS 8	Definition of Material	1 January 2020
Revision of the framework and changes to cross-references to the framework in various IFRS		1 January 2020

All new accounting policies presented in the table did not have a material effect on the consolidated financial statements.

The following standards and interpretations and amendments to existing standards and interpretations were approved by both the IASB and the EU, and come into force for financial years commencing after 1 January 2021. The company has not applied these regulations early.

Standard	Title	Mandatory application for financial years commencing from
Amendments to IAS 39, IFRS 4, IFRS 7, IFRS 9 and IFRS 16	Interest Rate Benchmark Reform – Phase 2	1 January 2021

All standards listed are applied by va-Q-tec only from the date of mandatory first-time adoption. According to the analyses that have been conducted, no significant effects arise for accounting and measurement for the 2021 financial year.

The following standards will become effective in the forthcoming years, but have not yet been endorsed by the EU:

Standard	Title	Mandatory application for financial years commencing from
Annual Improvements to IFRSs	Cycle 2018 – 2020	1 January 2022
Amendments to IFRS 3, IAS 16 and IAS 37		1 January 2022
IFRS 17	Insurance Contracts	1 January 2023
Amendments to IAS 1	Classification of Liabilities as Current or Non-current	1 January 2023
Amendments to IAS 1	Disclosure of Accounting Policies	1 January 2023
Amendments to IAS 8	Definition of Accounting Estimates	1 January 2023

The company is currently examining the potential effects on va-Q-tec's consolidated financial statements from standards or amendments to standards that have not yet been endorsed by the EU.

1.4 ACCOUNTING JUDGEMENTS AND ESTIMATES

In applying the accounting policies, the Group's management has made discretionary decisions that affect the amounts reported in the consolidated financial statements. Accordingly, assumptions and estimates are to be made to a certain extent when preparing consolidated financial statements that affect the amount and the reporting of recognized assets and liabilities, income and expenses, and contingent liabilities in the reporting period.

The assumptions and estimates are based on premises that in all cases reflect the currently available status of information at the time of each case. The expected future business trend also particularly reflects the circumstances prevailing at the time when the consolidated financial statements were prepared, as well as a realistically imputed future trend in the environment. As a result of developments in these overall conditions differing from the management's assumptions and lying outside its sphere of influence, the resultant amounts can differ from the originally expected estimated values.

The estimates and assumptions that are applied are presented in the notes to the individual items of the statement of financial position and income statement in section 3 "Accounting policies". The main effects impacting the amounts arise in the following areas:

- Determining useful economic lives for intangible assets and for property, plant and equipment, including assets leased as part of finance leases.
- Assessment of the lease term and determination of the relevant discount rate for the accounting treatment of leases.
- Impairment testing of assets based on appraisal of identifiable risks.
- Impairment testing of deferred tax assets in relation to tax loss carryforwards.
- Assessing the derecognition criteria of trade receivables as part of factoring agreements.
- Estimating market yield curves as part of measuring derivative financial instruments.
- Best possible estimate of the most probable settlement amount as part of the recognition and measurement of provisions.
- Assessing any requirement to separate, and measuring, embedded derivatives.
- Recognition of additional costs during the period of initiation of contracts with customers.
- Determination of the expected credit loss using the simplified approach for trade receivables and contract assets.

2 CONSOLIDATION

2.1 CONSOLIDATION SCOPE

The consolidation scope is derived by applying IFRS 10 (Consolidated Financial Statements). In the consolidated financial statements of va-Q-tec AG as of 31 December 2020, the following subsidiaries were fully consolidated:

Name	Headquarters	Equity interest 31/12/2020	Equity interest 31/12/2019
va-Q-tec Limited (UK)	Rochester, UK	100 %	100 %
va-Q-tec Inc. (USA)	East Rutherford, NJ, USA	100 %	100 %
va-Q-tec Ltd. (Korea)	Joong-gu, Incheon, Republic of Korea	100 %	100 %
va-Q-tec Switzerland AG (Switzerland)	Zürich, Switzerland	100 %	100 %
va-Q-tec Japan G.K. (Japan)	Tokyo, Japan	100 %	100 %
va-Q-tec Uruguay S.A. (Uruguay)	Montevideo, Uruguay	100 %	100 %
va-Q-tec SG PTE. Ltd. (Singapore)	Singapur, Singapur	100 %	100 %

va-Q-tec AG and its subsidiaries together form the va-Q-tec Group. Please refer to the segment reporting for key financial information about the subsidiaries.

2.2 CONSOLIDATION SCOPE CHANGES AND OTHER ACQUISITIONS AND DISPOSALS

No changes occurred in the fully consolidated subsidiaries of va-Q-tec in the 2020 financial year.

The interest held in SUMTEQ GmbH, which is reported at fair value under financial assets, decreased to 15.00% (previous year: 15.22%) due to a further capital increase by the company, in which va-Q-tec AG did not fully participate.

The interest of 15.00% (previous year: 0.00%) in ING3D GmbH acquired by va-Q-tec in the financial year for strategic reasons is recognised accordingly at fair value under financial assets. va-Q-tec AG does not exert any significant influence over the company.

2.3 CONSOLIDATION PRINCIPLES

The consolidated financial statements are based on uniform accounting principles. The annual financial statements of the companies included in the consolidation scope were adjusted where required in order to align them with the accounting policies applied in the Group. All of the annual financial statements of the companies included in the consolidated financial statements are prepared on the basis of the reporting date of the consolidated financial statements.

Subsidiaries are those companies where the Group holds existing rights that endow it with the current capability to manage the companies' relevant activities. Relevant activities are those activities that significantly affect the companies' profitability. For this reason, control exists if the Group is exposed to variable returns from its relationship to a company, and as a result of its power over the relevant activities it has the capability to influence these returns. In the va-Q-tec Group, the ability of control is based in all cases on a direct voting majority held by va-Q-tec AG. Inclusion of companies in the consolidated financial statements of va-Q-tec AG begins on the date from which the possibility of control exists. It ends if such control ceases.

As part of capital consolidation (consolidation of the investment account), the carrying amounts of the participating interests are offset with the subsidiary's proportional equity. As all subsidiaries comprise companies that va-Q-tec has founded, initial consolidation has not resulted in any differential amount.

Intragroup transactions are fully adjusted. This entails the offsetting of significant receivables, liabilities and provisions between the consolidated companies, and the elimination of intercompany profits and losses. Intragroup revenues are offset with the corresponding expenses. Tax deferrals required pursuant to IAS 12 are applied to any temporary differences on consolidation.

An associate is a company where va-Q-tec exerts significant influence. Significant influence is defined here as the ability to collaborate in the financial and business policy decisions of the participating interest without controlling it, or managing it jointly. If va-Q-tec AG directly or indirectly holds between 20% and 50% of the voting rights in the participating interest, the assumption exists that significant influence can be exercised. Given a directly or indirectly held voting rights interest of less than 20%, no significant influence is assumed unless it can be proven clearly.

Equity accounted investments are initially recognised at acquisition cost, before being recognised in subsequent periods at the proportionate value of their amortised net assets. This entails increasing or reducing the carrying amounts annually to reflect the proportionate profits and losses, dividend distributions, and all further equity changes. Unrealised gains based on transactions with associates are eliminated against the carrying amount of the participating interest according to the scope of the va-Q-tec interest. Unrealised losses are eliminated in the same manner, although only to the extent that no indications of impairment exist. Goodwill is not reported separately, but is instead included in the valuation of the participating interest. Goodwill is not amortised. Disclosed hidden reserves are amortised. Impairment losses are applied to equity accounted investments if their recoverable amount falls below their carrying amount.

2.4 FOREIGN CURRENCY TRANSLATION

The consolidated financial statements have been prepared in accordance with the functional currency concept. The functional currency of va-Q-tec AG is the primary currency of the economic environment in which the va-Q-tec Group operates. This corresponds to the euro, which also corresponds to the reporting currency for the consolidated financial statements. The functional currency of the subsidiaries in the USA, South Korea, Switzerland, Japan and Singapore is in each case the national currency, as these subsidiaries conduct their business independently in their respective markets. The functional currency of the UK company corresponds to the euro. The functional currency of the subsidiary in Uruguay is the US dollar.

In the financial statements of each Group company, business transactions denominated in foreign currencies are translated into the functional currency applying the rates valid on the transaction date. Monetary assets and liabilities denominated in foreign currencies are translated applying the rate prevailing on each reporting date. Non-monetary assets and liabilities measured at cost are translated at the exchange rate prevailing on the date when they are initially recognised on the statement of financial position. The foreign currency gains and losses arising from these translations are recognised in the consolidated income statement under other operating income or other operating expenses.

To prepare the consolidated financial statements, the assets and liabilities of the Group's foreign subsidiaries whose functional currency is not the euro are translated into euros applying the exchange rates on the reporting date. Income and expenses are translated at the average rate for the period, unless translation exchange rates during the period are subject to sharp fluctuations. In such cases, the exchange rates on the transaction date would be applied. Translation differences from the translation of foreign operations into the Group currency are recognised under consolidated other comprehensive income, and accumulated within equity.

The exchange rates into euros for the significant currencies in the Group applied for the translation are presented in the following table:

	Closing rate		Average rate	
	31/12/2020	31/12/2019	2020	2019
British pound	0.8990	0.8508	0.8887	0.8773
US dollar	1.2271	1.1234	1.1396	1.1196
South Korean won	1,336.0000	1,296.2800	1,344.3756	1,304.8974
Swiss Francs	1.0802	1.0854	1.0702	1.1127
Japanese Yen	126.4900	121.9400	121.7004	122.0561
Singapore dollar	1.6218	1.5111	1.5726	1.5272

3 ACCOUNTING POLICIES

3.1 CONSOLIDATED INCOME STATEMENT

Revenues

Revenue from the sale of goods is recognized when an asset is transferred and the customer obtains control of the asset, a transaction price has been agreed or can be determined, and payment is probable. Sales revenues from services are recognised to the extent that the service has been rendered, and the amount of the revenue can be measured reliably. Payments for unreturned thermal boxes in connection with rental services rendered are reported as revenue. Rebates, bonuses, VAT and other taxes associated with the service are deducted from sales revenues. All reported revenues represent revenues from contracts with customers.

Sales revenues are recognised at the transaction price of the consideration received or to be received, and reflect the amounts that are to be received for goods and services as part of ordinary business activity.

Sector-typical payment terms with customers not include any significant financing components. Warranty obligations under contracts between the company and its customers do not constitute separate performance obligations and are recognised as a provision.

With regard to the opening and closing balances and impairments of receivables from contracts with customers, we refer to the notes on trade receivables. For the composition of revenues by business segment, please refer to the notes on revenues, and for the composition by region please refer to the segment reporting.

Net financial result

Interest income and interest expenses reported under the net financial result are deferred and accrued in accordance with their respective terms, taking the outstanding loan sum and the applicable interest rate into account. The effective interest method is applied in this context.

Income taxes

The expense for taxes on income represents the sum of current income tax expense and deferred tax. The current income tax expense is calculated on the basis of taxable income for the year. Taxable earnings differ from the earnings before tax reported in the consolidated income statement, as these do not include income and expense items that were taxable or tax-deductible in other years, as well as items on which no tax is generally incurred, or which are generally not tax-deductible.

Deferred taxes are recognised in accordance with the balance sheet liability method as presented in IAS 12 (Income Taxes). This entails forming deferred tax items for temporary differences between tax valuations and valuations on the consolidated balance sheet, as well as for tax loss carryforwards. Deferred tax assets are only taking into consideration if it is probable that the corresponding tax benefits will also be realised. Loss carryforwards for which deferred tax assets have been formed are expected to be utilised within the five-year planning period. The carrying amount of deferred tax assets is reviewed each year on the reporting date, with an impairment loss being applied if it is no longer probable that sufficient taxable income will be available to fully or partially realise the asset.

Deferred tax liabilities are formed for taxable temporary differences arising from interests in subsidiaries, unless the Group can control the reversal of the temporary differences, and it is probable that the temporary difference will not reverse within the foreseeable future.

Deferred tax assets and deferred tax liabilities are offset to the extent that they relate to the same taxpayer, and exist in relation to the same tax authority.

To measure deferred tax, future years' tax rates are applied if the related legislation has already been enacted, or the legislative process has essentially been concluded. Deferred taxes are recognised in profit or loss, as a matter of principle. To the extent that the charges or reliefs underlying deferred taxes are carried directly to equity, the formation or release of deferred taxes also occurs directly in equity.

Earnings per share

Earnings per share (basic earnings per share) are calculated on the basis of IAS 33 (Earnings Per Share). Basic earnings per share are calculated by dividing the after-tax profits attributable to the parent company shareholders by the weighted average number of shares in issue during the financial year under review. At the end of the financial year under review, as in the previous year, only ordinary shares were issued, so that the consolidated net income does not have to be allocated to different classes of shares. Diluted earnings per share are not shown separately as, as in the previous year, no potentially diluting instruments were outstanding as of 31 December 2020.

3.2 CONSOLIDATED STATEMENT OF FINANCIAL POSITION

3.2.1 Assets

Intangible assets

Pursuant to IAS 38, intangible assets are capitalised if a future economic benefit is expected from utilisation of the asset, and the costs of the asset can be calculated reliably.

Individually purchased intangible assets are recognised at purchase cost on initial recognition, and intangible assets that the company has generated itself are recognised at production cost. In subsequent periods, intangible assets are measured at cost less cumulative amortisation and any cumulative impairment losses. Research costs are expensed in the period in which they are incurred.

Intangible assets with limited useful life are amortised straight-line over their useful life, and impairment-tested as soon as any indications emerge that they might have become impaired. The estimated useful life and amortisation method are reviewed at the end of the annual reporting period, and any changes to the estimated value are taken into account in subsequent measurement. Amortisation is based on the following useful lives:

Software	3 – 5 years
Internally generated intangible assets	6 years

Gains or losses on the derecognition of intangible assets are calculated as the difference between net disposal proceeds and the asset's carrying amount, and recognised in profit or loss within other operating income or other operating expenses in the period in which the asset is derecognised.

An intangible asset arising from internal development (or the development phase of an internal project) is recognised if the corresponding criteria of IAS 38.57 are shown to have been met. Capitalised production costs of internally generated intangible assets comprise costs directly attributable to the development process, and development-related overheads

Property, plant and equipment

Property, plant and equipment are utilised for business purposes, and measured at cost less cumulative depreciation and cumulative impairment losses.

The purchase costs of an item of property, plant and equipment comprise all costs attributable to the purchase of the asset. Repair and maintenance charges are expensed in the income statement in the financial year in which they are incurred. Internally generated assets are initially measured at directly attributable production cost plus production-related overheads.

Borrowing costs that are directly attributable to the acquisition, construction or production of a so-called qualifying asset as part of the cost of that asset are capitalised as part of cost pursuant to IFRS.

Property, plant and equipment is depreciated straight-line in accordance with its type of use and duration of use. Property, plant and equipment is depreciated straight-line in accordance with its type of use and duration of use. Depreciation starts on the date on which the assets are available for their intended use. Depreciation is based mainly of the following useful lives:

Buildings, outdoor and other facilities	
Buildings	33 – 40 years
Outdoor and other facilities	5 – 20 years
Production equipment and machinery	
Production plants	8 – 21 years
Other production equipment and machinery	3 – 25 years
Operating and office equipment	3 – 15 years
Container fleet	5 years
Box fleet	2 – 5 years

If any indications of impairment exist, property, plant and equipment are tested for potential impairment accordingly.

Gains or losses arising from the disposal or derecognition of an item of property, plant and equipment are calculated as the difference between disposal proceeds and the asset's carrying amount, and recognised in profit or loss among other operating income or other operating expenses.

Investment property

Investment property comprises land and buildings held to generate rental income and for the purposes of value appreciation, rather than being utilised for the company's own production, to deliver goods or render services, for administrative purposes or for sale as part of ordinary operating activities. Investment property is measured at cost less accumulated depreciation and impairment losses.

If indications of impairment exist, investment property is tested for potential impairment accordingly.

Contract assets

Contract assets include development costs that do not already meet the criteria for capitalisation in accordance with other standards. These are primarily customer-specific developments that are performed during the contract initiation period, are directly related to an expected contract, and are expected to recover the related costs. Firstly, such costs are incurred for the modification or qualification of products from the company's existing product range according to customer-specific requirements, and, secondly, for the implementation of va-Q-tec products or services into the customer's processes. In addition, these costs create new or improve existing resources for the company that will be used for the future fulfilment of performance obligations.

Additional costs for customer-specific developments during the contract initiation, for which the amortization period would not exceed one year are expensed immediately.

Capitalised contract assets are amortized simultaneously with the transfer of the goods or services to which the contract assets relate.

Impairment testing

Intangible assets with indefinite useful lives, as well as intangible assets that are not yet ready for utilisation, are not amortised, but are instead tested annually for impairment. Assets that are amortised are impairment-tested where an indication exists that the asset's carrying amount may no longer be recoverable. An impairment loss is recognised equivalent to the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount of an asset is the higher of an asset's fair value less costs to sell, and its value in use. The value in use in this context is calculated on the basis of the estimated future cash flows from the utilisation and disposal of the asset, applying the discounted cash flow method. A pre-tax interest rate in line with market conditions is applied as the discounting rate in this context. If no recoverable amount can be calculated for an individual asset, the recoverable amount is calculated for the smallest identifiable group of assets (cash-generating unit) to which the respective asset can be allocated.

If the reasons for the impairment loss no longer apply at a later date, a reversal of the impairment loss is realised up to the level of the new recoverable amount, as a matter of principle. Such reversals of impairment losses are limited to the amortised carrying amount that would have arisen without the impairment loss applied in the past.

No indicators of potential impairment were identified. Accordingly, no impairment losses or reversals of impairment losses pursuant to IAS 36 were applied in either the period under review, or in the previous year.

Leases

Leasing

Leases comprise all agreements that transfer the right to use a specific asset for a fixed period of time in return for payment. This also applies to contracts where the transfer of such a right is not expressly described. As a lessee, va-Q-tec uses real estate and vehicles, in particular.

Group as lessee

Based on the opportunities and risks associated with a leased asset, an assessment was made until 31 December 2018 as to whether economic ownership of the leased asset was attributable to the lessee (so-called finance leases) or the lessor (so-called operating leases) in accordance with IAS 17.

In the case of an operating lease, the lease instalments or rental payments were expensed straight-line in the income statement. Assets accounted for under a finance lease are recognized at the inception of the lease at the lower of the present value of the lease payments or the fair value of the leased property or equipment, and, in subsequent periods, less accumulated depreciation and other accumulated impairment losses. Depreciation was calculated applying the straight-line method, taking into account the asset's residual value. The payment obligations resulting from the future lease installments were discounted and carried under financial liabilities.

As of 1 January 2019, the Group as lessee generally recognizes rights of use for leased assets in property, plant and equipment and liabilities for payment obligations entered into at present values under other financial liabilities. The leasing liabilities include the following leasing payments:

- fixed payments, including de facto fixed payments, less lease incentives still to be paid by the lessor,
- variable payments linked to an index or interest rate,
- expected amounts that are likely to be paid due to residual value guarantees,
- the exercise price of a purchase option, if exercise is considered sufficiently certain, and
- contractual penalties for terminating the lease, if the assumed term of the lease takes into account that a termination option is exercised.

Lease payments are discounted at the marginal borrowing rate. The interest rate is calculated on the basis of the risk-free reference interest rate, taking into account the term of the leases in the relevant Group currency (in EUR thousands) plus a risk premium corresponding to va-Q-tec's rating. If necessary, country- and currency-specific adjustments to the base rate are applied. The risk premium is structured uniformly throughout the Group, as no significant differences in credit risk exist within the Group. In the financial year under review, leasing-specific adjustments were not necessary as, for example, collateral had no material impact on the interest rate. Changes in leases and revaluations of lease liabilities are generally recognised directly in equity against the right of use. The lease is recognised in the income statement if the carrying amount of the right of use has already been reduced to zero, or if it derives from a partial or early termination of the lease.

The right to use the leased asset was capitalized in proportion to the lease liability. At the start of the lease, the value of the right of use corresponds to the present value of the corresponding lease liability. In subsequent periods, the right of use is measured at amortised cost. The Group also conducts impairment tests if corresponding indicators exist.

The Group utilises the relief provisions of IFRS 16 for short term leases (leases with terms of less than 12 months) and low value assets. A benchmark of kEUR 5 is applied for low-value assets. Payments from leasing obligations with a term of no more than twelve months are expensed at the time of payment in accordance with the option. In addition, va-Q-tec does not generally present the leasing and service components separately from one another in accordance with the option offered by the standard.

Sale-and-finance-leaseback transactions

As part of sale-and-finance-leaseback transactions, until 31 December 2018 the Group sold containers to leasing companies, and then leased them back. As a result of the leaseback, the Group re-assumed all significant risks and rewards connected with ownership, and classified the lease as a finance lease. The revenues from these sale-and-finance-leaseback transactions were eliminated in full. As all containers are produced and leased back via sale-and-finance-leaseback transactions in the same period, the related additions from own work performed by the enterprise and capitalised were offset with the same disposals of equal amount, and reported under changes to the cost of the container fleet under property, plant and equipment. Initial recognition of the finance lease asset was according to the general regulations of IAS 17, and resulted in a capitalisation of the leased asset and the corresponding liability.

The excess of the cash accruing to va-Q-tec (sales price) resulting from the sale of containers over the carrying amount or the own work capitalised could not be recognised immediately in profit or loss in the case of sale-and-finance-leaseback transactions, but was instead recognised on the liabilities side of the balance sheet under non-financial liabilities as deferred income (special item for deferred container profits). This deferred income is released through profit or loss over the 5-year lease duration, and reported under other operating income in the consolidated income statement. The existing special item will be released by 31 August 2023.

Since 1 January 2019, a sale-and-leaseback transaction must first be examined on the basis of the criteria of IFRS 15 to determine whether the transfer of an asset constitutes a sale. If the transfer of an asset does not meet the requirements for accounting for a sale as set out in IFRS 15, the asset continues to be recognised, and the proceeds received are recognised as a financial liability, in accordance with IFRS 9. If the transfer of the asset constitutes a sale, the leased-back assets are recognised in the consolidated financial statements in accordance with the principles of lessee accounting described above.

Group as lessor

The Group acts as lessor in operating leases. This concerns the rental of containers and boxes to third parties that is of a short-term nature as a rule. As part of these leases, the opportunities and risks associated with ownership are not transferred to the lessee, with the consequence that the leased containers and boxes are reported under non-current assets. Revenues from rentals are presented within revenues. Income from the temporary rental of premises not continuously used by the company is reported in other operating income.

Inventories

Inventories are measured at the lower of cost and net realisable value. When calculating purchase costs, ancillary purchase costs are added, and purchase price reductions are deducted. Production costs include direct materials and manufacturing costs, as well as the production-related share of fixed and variable overheads. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale. The loss-free valuation entails applying inter alia discounts accounting for marketability.

Financial instruments and financial assets

Financial assets comprise especially receivables and cash. Recognition and measurement is performed in accordance with IFRS 9. Financial assets are recognised if the Group is contractually entitled to receive cash or other financial assets from third parties. Purchases and sales of financial assets are recognised as of the settlement date, as a matter of principle. Financial assets are initially recognised at fair value, plus transaction costs where relevant. Transaction costs of financial assets that are measured at fair value through profit or loss are expensed. Subsequent measurement is performed in accordance with allocation to the categories of financial assets pursuant to IFRS 9.

The classification and measurement of financial assets is based, firstly, on the so-called cash flow condition (exclusively cash flows from interest and capital repayments) in accordance with the specific form of the contractually agreed cash flows from an individual financial asset. Secondly, this also depends on the business model according to which portfolios of financial assets are managed. va-Q-tec's business model for managing portfolios of financial assets reflects how the company manages its financial assets to generate its cash flows. Depending on the business model, cash flows arise from the receipt of contractual cash flows, the sale of financial assets, or both.

On the basis of these criteria, va-Q-tec applies the following valuation categories for financial assets:

Financial assets measured at amortised cost include all assets whose contractual provisions result in cash flows at specified dates that exclusively represent interest and principal payments on the outstanding principal amount in accordance with the cash flow condition of IFRS 9, provided that such assets are held with the intention of receiving the contractual cash flows expected over their respective terms. Trade receivables, receivables included among other financial assets, and cash and cash equivalents are allocated to this measurement category. These assets are initially measured at fair value. This is regularly equal to the transaction price at the time of acquisition. Subsequent measurement through profit or loss is based on the effective interest method.

Financial assets at fair value through profit or loss include all financial assets whose cash flows are not collected via sale or that do not represent exclusively interest and principal payments in accordance with the cash flow condition established in IFRS 9. Changes to the fair values of financial assets in this category, including derivative financial instruments, are expensed. The gain or loss arising from measuring derivative financial instruments is expensed under the net financial result, unless the derivative is included as a hedging instrument as part of the hedge (hedge accounting), and is effective as such. In the year under review as well as in the previous year, no hedging transactions were carried out for financial assets.

Pursuant IFRS 9, individual financial assets are tested for potential impairment on each reporting date. If any objective indications of impairment exist, an impairment loss is expensed equivalent to the difference between the asset's carrying amount and the present value of its expected future cash flows, and recognised within a separate impairment account. If the level of the impairment reduces in subsequent periods due to events that have occurred objectively after the date when the impairment was recognised, the impairment is reversed in the equivalent amount through profit or loss. Impaired receivables are derecognised if they are assessed as uncollectible. In accordance with IFRS 9, the simplified approach is also applied to the determination of expected credit losses on trade receivables, and expected credit losses are recognized as an impairment loss over the entire term of the receivable. The Group also applies the simplified approach to contract assets.

The Group derecognises a financial asset if the contractual rights to the cash flows from an asset expire, or it receives rights to receive cash flows in a transaction in which all significant risks and opportunities connected with the ownership of the financial asset are also transferred. A portion of such transferred financial assets that originate or remain within the Group is recognised as a separate asset or separate liability.

3.2.2 Equity and liabilities

Equity

Equity comprises cash and non-cash capital contributions that substantiate a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments are recognised at the issue proceeds received, less directly attributable transaction costs. Transaction costs comprise costs that would not have been incurred without the issue of the equity instrument. These are deducted from additional paid-in capital taking all tax effects into account. The consolidated statement of changes in equity presents the development of the consolidated equity of the va-Q-tec Group for the 2020 and 2019 financial years.

Treasury shares

va-Q-tec applies the cost method to recognise the treasury shares it acquired for the first time in 2016, whereby the costs to purchase the treasury shares are reported within a separate item within equity.

Share-based payment

The company currently has no arrangements for equity-settled share-based payment transactions with employees. The "Other disclosures" section provides further information about share-based payment within the va-Q-tec Group.

Government grants

A government grant is not recognised until reasonable assurance exists that the company will comply with the conditions attaching to it, and that the grant will be received. They are recognised in profit or loss in the period in which the Group bears the corresponding expenses that are to be offset by the grants. Government grants whose most important condition is the purchase, construction or other type of acquisition of long-term assets are recognised as non-financial liabilities on the statement of financial position. They are released through profit or loss within other operating income based on the corresponding asset's useful life. In 2020, va-Q-tec AG received kEUR 265 of public grants to purchase non-current assets (previous year: kEUR 0).

Provisions

Provisions are reported if a current legal or constructive obligation has arisen for the Group from a past event that is likely to result in a future outflow of resources embodying economic benefits, and the level of this obligation can be estimated reliably.

The amount recognised as a provision corresponds to the best possible estimate of the consideration required to settle the current obligation as of the reporting date, whereby risks and uncertainties connected with the obligation are taken into account. All significant cost factors are included in the measurement of provisions. If the interest effect is material, non-current provisions with a remaining term of more than one year are reported at the discounted settlement amount as of the balance sheet date. If it is to be expected that the economic benefit required to settle an obligation for which a provision has been formed will be reimbursed wholly or partly by third parties, the receivable is recognised as an asset if it is as good as certain that the reimbursement will occur, and the level of the receivable can be measured reliably.

Provisions for warranties are formed on the date when the respective goods are sold, or the corresponding services are rendered. The level of the provision is based on historical trends, and an estimate of future warranty cases.

Financial liabilities

Financial liabilities comprise mainly bank borrowings, trade payables, and other financial liabilities. They are measured at fair value on initial recognition, and subsequently – except derivative financial instruments measured at fair value – at amortised cost applying the effective interest method, less directly attributable transaction costs where relevant.

To hedge foreign currency risks, certain derivative financial instruments are assigned to fixed obligations agreed in foreign currencies as hedging instruments in order to hedge the associated risk. These derivative financial instruments are recognized at fair value as other financial liabilities. The effective portion of changes in the fair value of derivative financial instruments designated as cash flow hedges and qualifying for hedge accounting in accordance with IFRS 9 is recognized directly in equity. Any ineffective portion of the change is recognized in profit or loss. The amount recognized in equity is recognized in the consolidated income statement in the period in which the hedged item affects profit or loss.

4 NOTES

4.1 CONSOLIDATED INCOME STATEMENT

4.1.1 Revenues

The revenues are composed as follows:

kEUR	2020	2019
Products	18,303	18,440
Systems	19,520	15,054
Services	32,657	29,811
Other	1,626	1,362
Group, total	72,106	64,667

The product and system business comprises the production and sale of vacuum insulation panels and heat storage components. These products are sold in the following sectors: Healthcare & Logistics, Appliances & Food, Technics & Industry, Building, and Mobility. Revenues in this segment remained stable over the entire financial year. Although revenues initially decreased in the first half of the year due to pandemic-related closures of customers' production plants in the refrigeration equipment sector, the company grew its revenues in the second half of the year. However, the market for vacuum insulation panels recovered in the second half of the year.

The Systems division comprises the sale of thermal packaging to customers in the Healthcare and Logistics sector. The 30% increase in revenues in the Systems division was influenced in the financial year under review not only by the acquisition of new customers, but also particularly by major project business.

The Services division comprises the container and box rental business for the transportation of temperature-sensitive goods, predominantly products from the pharmaceuticals and biotech sectors. Compared to the previous year, the positive revenue trend was successfully continued. The expansion of the container and box rental business, together with a broadening of the customer base and the commissioning of further supply lines, led to further revenue growth of 10%. Pandemic-related effects such as the transport of test kits and initial vaccines also contributed to this trend. By contrast, the decrease in box rentals for clinical studies, including due to the pandemic, had a negative impact. Other revenues are generated through thermal consulting and government-subsidised research projects.

Compared with the previous year, the dynamic growth of 12% in the three main divisions of Products, Systems and Services Medium continued. The revenues of the Services division also include compensation payments from customers for thermal boxes unreturned within the rental network in an amount of kEUR 543 (previous year: kEUR 784). Please refer to the section on segment reporting for more information.

4.1.2 Work performed by the company and capitalised

The following table shows the trend in work performed by the company and capitalised in the 2019 and 2020 financial years. Due to the further expansion of the container and box rental business and the Covid-19-related higher demand for these services, the investment volume in this area was increased again.

kEUR	2020	2019
Work performed by the company and capitalised arising from expansion of rental-container-fleet	3,827	2,173
Work performed by the company and capitalised arising from expansion of rental-boxes-fleet	1,101	806
Other work performed by the company and capitalised	1,451	968
Group, total	6,379	3,947

Of the total research and development costs of kEUR 2,694 incurred in 2020 (previous year: kEUR 2,417), a total of kEUR 359 (previous year: kEUR 300) meet IFRS capitalisation criteria. The other research and development costs were recognised in the corresponding items of the consolidated income statement, mainly under personnel expenses

4.1.3 Other operating income

kEUR	2020	2019
Income from release of special item for deferred container profits	2,397	2,866
Exchange rate gains	512	417
Income from release of special item for grants	487	442
Gains on fixed asset disposals	287	213
Income from other accounting periods	263	235
Renewable energy subsidies	23	26
Other income	700	299
Group, total	4,669	4,498

Other operating income of kEUR 4,669 (previous year: kEUR 4,498) derives mainly from scheduled and continuous releases from the special item from sale-and-finance-leaseback transactions and government grants, as well as foreign currency transactions, gains on asset disposals, and income relating to other accounting periods.

4.1.4 Cost of materials and services

kEUR	2020	2019
Cost of raw materials and supplies	19,645	16,351
Cost of purchased services	13,106	12,642
Group, total	32,751	28,993

The cost of materials was up from kEUR 28,993 to kEUR 32,751 (+13%), slightly less than the rate of total income growth, leading to a reduction in the cost of materials ratio of one percentage point to 39% (previous year 40%). Along with costs for raw materials and for purchased services, the cost of materials and services includes especially logistics services in the container rental business. The cost of purchased services includes expenses from short-term leasing agreements of kEUR 32.

4.1.5 Personnel expenses

The following table shows the trend in personnel expenses in the 2020 and 2019 financial years:

kEUR	2020	2019
Wages and salaries	21,984	18,900
Social security contributions	4,127	3,489
Group, total	26,111	22,389

Personnel expenses decreased from kEUR 22,389 in the previous year to kEUR 26,111 in the 2020 reporting period (+17%), with the personal expense ratio in relation to total income thereby remaining constant at 31 %. The absolute increase is mainly due to new hires at va-Q-tec AG, higher bonuses and management bonuses based on the significantly improved results compared to the previous year, as well as salary updates of hires from 2019. Social security contributions contain mainly employer contributions to statutory social security. A defined contribution pension scheme exists as part of German statutory pension insurance for employees in Germany, to which the va-Q-tec Group is required to make payments at the contribution rate prevailing during the period under review of 9.3% (previous year 9.3%) (employer component) of pension compensation. The contributions rendered amounted to kEUR 1,426 in the reporting year (previous year: kEUR 1,269). In addition, va-Q-tec AG renders contributions of kEUR 120 (previous year: kEUR 119) to direct insurance as part of its company pension scheme. A defined contribution pension plan also exists at the subsidiaries in the UK, Korea, Japan and Singapore. Contributions of kEUR 82 (previous year: kEUR 69) were expensed at the UK company, kEUR 32 (previous year: kEUR 0) at the US company, kEUR 18 (previous year: kEUR 17) at the Korean company, kEUR 24 (previous year: kEUR 15) at the Japanese company, and kEUR 26 (previous year: kEUR 22) at the Singapore company. Defined contribution commitments have also existed for the Management Board members since 2014, for which kEUR 18 (previous year: kEUR 15) was paid into an external, congruently reinsured, pension fund in the current financial year. As a consequence, kEUR 1,746 (previous year: kEUR 1,526) of expenses for defined contribution pension plans were recognised. Wages and salaries for the 2020 financial year again do not include any costs from granting options to staff (previous year: kEUR 0). See section 5.3 for more information about share-based payment.

The average number of employees in the 2019 and 2020 financial years is presented below:

	2020	2019
Male employees	370	329
Female employees	149	135
Group, total	519	464

4.1.6 Other operating expenses

kEUR	2020	2019
Legal, patents and consulting costs	3,053	2,322
Freight	2,436	1,421
Repair and maintenance	1,430	1,317
Exchange rate losses	1,333	342
Marketing and sales	1,182	1,904
Rent, leasing and other facility costs	1,035	984
IT and other office costs	812	846
Insurance and contributions	695	478
Other personnel expenses	514	520
Expense for asset disposal (boxes)	231	433
Supervisory Board compensation	161	155
Expenses relating to other accounting periods	84	217
Other	905	823
Group, total	13,871	11,762

Other operating expenses increased by 18% to kEUR 13,871 in the 2020 reporting period (previous year: kEUR 11,762). The main reasons for this were the worldwide, pandemic-related high price increases for freight costs and currency losses due to the change in the US dollar exchange rate. As a result of the company's growth and the expanding rental business with boxes, insurance and premiums also show an increase. Marketing and trade fair costs, in particular, developed in the opposite direction due to the Covid-19-related contact and travel restrictions. Other operating expenses include expenses from leasing contracts with a term of less than 12 months in the amount of kEUR 93 (previous year: kEUR 43), as well as kEUR 2 (previous year: kEUR 3) for low-value assets.

4.1.7 Depreciation, amortisation and impairment losses

Depreciation and amortisation charges of kEUR 12,299 were expensed in the 2020 financial year (previous year: kEUR 12,232). No impairment losses or reversals of impairment losses occurred in either of these financial years. The depreciation on rights of use under leases amounted to kEUR 1,049 in the financial year under review (previous year: kEUR 976).

4.1.8 Result from fair value measurement of investments

The gain recognized in profit or loss due to the change in the fair value of the investment in SUMTEQ GmbH as a result of a further capital increase of the company amounts to kEUR 647 (previous year: kEUR 1,771).

4.1.9 Net financial result

kEUR	2020	2019
Income from derivative financial instruments	12	16
Financial income	12	16
Interest expense	-1,058	-770
Interest expense from finance lease	-213	-309
Financial expenses	-1,271	-1,079
Net financial result	-1,259	-1,063

The increase in interest expense is due to additional borrowings in the first half of 2020, and from the expense for interest accrued on the bond issued in November 2020.

4.1.10 Income taxes

kEUR	2020	2019
Actual tax expense (tax income)		
Current period	34	3
Prior periods	-9	-
Deferred tax expense (tax income)	-102	644
Group, total	-77	647

Deferred tax is calculated applying tax rates that are valid or expected to be valid based on current legislation in the individual countries as of the realisation date.

The tax reconciliation account explains the connection between the expected tax expense and the actually reported tax expense, which derives from the IFRS consolidated result before income tax, applying a 30.3% income tax rate (previous year: 30.3%). In each case, the income tax rate applied corresponds to the average domestic tax rate of va-Q-tec AG comprised of corporation tax (plus the solidarity surcharge) and trade tax.

kEUR	2020	2019
Consolidated earnings before tax	-1,511	-1,920
Expected income tax expense	30.3%	30.3%
Expected income tax expense (tax income)	-457	-581
Tax-free income	-214	-526
Non-tax-deductible operating expenses	62	104
Non-capitalised deferred taxes on temporary differences and tax loss carryforwards	1,092	1,321
Not recognised deferred taxes for current income/loss (IAS 12.15b)	-59	-31
Effects from tax rate changes	-75	-1
Utilisation of non-capitalised loss carryforwards	-506	-
Reported tax expense	9	-10
Divergent foreign tax rates	59	377
Other effects	12	-6
Reported tax expense (tax income)	-77	647

The following overview shows to which balance sheet items the deferred tax assets and deferred tax liabilities are to be allocated:

kEUR	Deferred tax assets 31/12/2020	Deferred tax liabilities 31/12/2020
ASSETS		
Intangible assets	-	732
Property, plant and equipment	1,321	550
Contract assets	-	22
Interests in subsidiaries, joint ventures and associates	-	-
Non-current financial assets	-	44
Inventories	249	23
Trade receivables	-	-
Other current financial assets	-	-
Other current non-financial assets	-	-
EQUITY AND LIABILITIES		
Non-current provisions	-	-
Non-current bank liabilities	-	4
Other non-current financial liabilities	218	-
Other non-current non-financial liabilities	593	120
Current provisions	62	2
Current bank liabilities	-	2
Trade payables	-	-
Other current financial liabilities	135	-
Other current non-financial liabilities	509	-
Loss carryforwards	883	-
Total before offsetting	3,970	1,499
Offsetting	-1,499	-
As reported	2,471	-

kEUR	Deferred tax assets 31/12/2019	Deferred tax liabilities 31/12/2019
ASSETS		
Intangible assets	-	647
Property, plant and equipment	740	503
Contract assets	-	48
Interests in subsidiaries, joint ventures and associates	-	-
Non-current financial assets	-	50
Inventories	229	25
Trade receivables	-	-
Other current financial assets	-	-
Other current non-financial assets	-	-
EQUITY AND LIABILITIES		
Non-current provisions	-	-
Non-current bank liabilities	-	-
Other non-current financial liabilities	182	-
Other non-current non-financial liabilities	1,115	133
Current provisions	13	8
Current bank liabilities	-	2
Trade payables	-	-
Other current financial liabilities	98	-
Other current non-financial liabilities	740	-
Loss carryforwards	618	-
Total before offsetting	3,735	1,416
Offsetting	-1,416	-
As reported	2,319	-

Deferred tax assets are only recognised if such tax benefits can be realised. This entails taking into account all currently known positive and negative factors affecting future taxable results. Of the deferred tax assets, kEUR 883 (previous year: kEUR 618) are attributable to individual companies that have incurred tax losses in either the current reporting period or in the previous period. Due to the largely positive business trend, the Group generally assumes that its deferred tax assets can be utilised. Especially at the production company (va-Q-tec AG) and in the container service business (va-Q-tec Ltd. (UK)), extensive investments in personnel, technology and capacities were realised in the years from 2012 to 2019. These investments are prerequisites for growth. Sustained profitability is assumed in the medium term, thereby allowing the deferred tax assets to be utilised.

As of 31 December 2020, tax loss carryforwards for which no deferred taxes were capitalized decreased to kEUR 12,920 (previous year: kEUR 13,394). These tax loss carryforwards derive from the subsidiary in the USA as well as the German parent company. In 2020 at the UK subsidiary, deferred tax assets were formed in relation to tax loss carryforwards after offsetting with deferred tax liabilities in an amount of kEUR 292 (previous year: kEUR 58) based on the profit achieved in the financial year under review and the expectation of future profits.

The tax loss carryforwards at all companies can be utilised on an unlimited basis

4.1.11 Earnings per share

The calculation of basic (undiluted) earnings per share is based on the earnings attributable to the holders of ordinary shares and a weighted average of the number of ordinary shares in issue.

Earnings per share were not diluted in the past financial year as there are currently no dilutive share options in va-Q-tec in circulation.

Earnings per share are as follows:

Earnings per share	2020	2019
Consolidated net result (kEUR)	-1,435	-2,566
Weighted average number of shares	13,075,936	13,075,936
Earnings per share (in EUR)	-0.11	-0.20

Weighted average number of shares

in shares	2020	2019
Shares issued as 1 January	13,075,936	13,075,936
Retrospective effect of capital increase from company funds (share split)	-	-
Effect of purchase of treasury shares	-	-
Weighted average number of ordinary shares (undiluted/basic) / (diluted) as of 31 December	13,075,936	13,075,936

Please refer to the remarks about equity in section 4.2.2.1 for information about the composition of issued share capital.

4.2 CONSOLIDATED STATEMENT OF FINANCIAL POSITION

4.2.1 Assets

4.2.1.1 Intangible assets

Non-current assets

kEUR	Aquisition and production cost					Balance on 31/12/2020
	Balance on 01/01/2020	Exchange rate differences	Additions	Reclassifications	Disposals	
1. Software and other purchased intangible asstes	1,593	-	414	-	-	2,007
2. Internally generated intangible assests	2,599	-	1,390	-	-	3,989
3. Internally generated intangible assests in production stage	-	-	49	-	-	49
Intangible assets, total	4,192	-	1,853	-	-	6,045

Non-current assets

kEUR	Depreciation, amortisation and impairment losses					Carrying amount		
	Balance on 01/01/2020	Exchange rate differences	Depreciation, amortisation and impairment losses in the fiscal year	Reclassifications	Disposals	Balance on 31/12/2020	Balance on 31/12/2020	Balance on 31/12/2019
1. Software and other purchased intangible assets	919	-	255	-	-	1,174	833	674
2. Internally generated intangible assests	1,040	-	876	-	-	1,916	2,073	1,559
3. Internally generated intangible assests in production stage	-	-	-	-	-	-	49	-
Intangible assets, total	1,959	-	1,131	-	-	3,090	2,955	2,233

Non-current assets

kEUR	Aquisition and production cost				
	Balance on 01/01/2019	Exchange rate differences	Additions	Disposals	Balance on 31/12/2019
1. Software and other purchased intangible assets	1,345	-	248	-	1,593
2. Internally generated intangible assests	2,137	-	462	-	2,599
3. Internally generated intangible assests in production stage	12	-	-	12	-
Intangible assets, total	3,494	-	710	12	4,192

Non-current assets

kEUR	Depreciation, amortisation and impairment losses					Carrying amount		
	Balance on 01/01/2019	Exchange rate differences	Depreciation, amortisation and impairment losses in the fiscal year	Reclas-sifications	Dispo-sals	Balance on 31/12/2019	Balance on 31/12/2019	Balance on 31.12.2018
1. Software and other purchased intangible assets	669	-	250	-	-	919	674	676
2. Internally generated intangible assests	388	-	652	-	-	1,040	1,559	1,749
3. Internally generated intangible assests in production stage	-	-	-	-	-	-	-	12
Intangible assets, total	1,057	-	902	-	-	1,959	2,233	2,437

The additions to the internally generated intangible assets item include the company's product and software development work, which it has capitalised.

No indicators of potential impairment were identified. Accordingly, no impairment losses or reversals of impairment losses pursuant to IAS 36 were applied in either the period under review, or in the previous year.

4.2.1.2 Property, plant and equipment

Non-current assets

kEUR	Aquisition and production cost					Balance on 31/12/2020
	Balance on 01/01/2020	Exchange rate differences	Additions	Reclassifications	Disposals	
1. Land and buildings	38,140	-96	1,638	634	223	40,093
2. Production equipment and machinery	21,036	-	952	2,062	7	24,043
3. Other plant, operating and office equipment	10,905	-65	2,923	232	766	13,229
4. Container fleet	29,609	1	4,034	-	387	33,257
5. Plant under construction	3,656	-	2,886	-2,928	8	3,606
Property, plant and equipment, total	103,346	-160	12,433	-	1,391	114,228

Non-current assets

kEUR	Depreciation, amortisation and impairment losses					Carrying amount		
	Balance on 01/01/2020	Exchange rate differences	Depreciation, amortisation and impairment losses in the fiscal year	Reclassifications	Disposals	Balance on 31/12/2020	Balance on 31/12/2020	Balance on 31/12/2019
1. Land and buildings	3,135	-38	1,201	6	139	4,165	35,928	35,005
2. Production equipment and machinery	9,639	-	1,756	1	7	11,389	12,654	11,397
3. Other plant, operating and office equipment	5,496	-24	2,041	-7	558	6,948	6,281	5,409
4. Container fleet	16,197	-	6,170	-	277	22,090	11,167	13,412
5. Plant under construction	-	-	-	-	-	-	3,606	3,656
Property, plant and equipment, total	34,467	-62	11,168	-	981	44,592	69,636	68,879

Non-current assets

kEUR	Aquisition and production cost					Balance on 31/12/2019
	Balance on 01/01/2019	Exchange rate differences	Additions	Reclassifications	Disposals	
1. Land and buildings	34,702	4	3,416	18	-	38,140
2. Production equipment and machinery	19,382	-	1,079	668	93	21,036
3. Other plant, operating and office equipment	8,602	13	3,150	124	984	10,905
4. Container fleet	33,140	-	2,404	-	5,935	29,609
5. Plant under construction	3,340	-	1,261	-810	135	3,656
Property, plant and equipment, total	99,166	17	11,310	-	7,147	103,346

Non-current assets

kEUR	Depreciation, amortisation and impairment losses					Carrying amount		
	Balance on 01/01/2019	Exchange rate differences	Depreciation, amortisation and impairment losses in the fiscal year	Reclassifications	Disposals	Balance on 31/12/2019	Balance on 31/12/2019	Balance on 31/12/2018
1. Land and buildings	1,790	-2	1,347	-	-	3,135	35,005	32,912
2. Production equipment and machinery	8,060	-	1,665	-	86	9,639	11,397	11,322
3. Other plant, operating and office equipment	4,313	2	1,806	-	625	5,496	5,409	4,289
4. Container fleet	15,613	-	6,512	-	5,928	16,197	13,412	17,527
5. Plant under construction	-	-	-	-	-	-	3,656	3,340
Property, plant and equipment, total	29,776	-	11,330	-	6,639	34,467	68,879	69,390

Additions to property, plant and equipment resulted primarily from investment in the further expansion of the container fleet and in the build-up of the thermal box fleet for the global rental business, as well as in the expansion of production capacity in Würzburg and in Kölleda. The composition of the rights of use and the change in the rights of use in the reporting period is presented in the following table:

Non-current assets - Right-of-use

kEUR	Aquisition and production cost					Balance on 31/12/2020
	Balance on 01/01/2020	Exchange rate differences"	Additions	Reclassifications	Disposals	
1. Land and buildings	1,520	-96	590	-	223	1,791
2. Production equipment and machinery	1,356	-	3	-	-	1,359
3. Other plant, operating and office equipment	1,632	-2	490	-	168	1,952
4. Container fleet	24,662	-	-	-	68	24,594
Property, plant and equipment, total	29,170	-98	1,083	-	459	29,696

Non-current assets - Right-of-use

kEUR	Depreciation, amortisation and impairment losses					Carrying amount		
	Balance on 01/01/2020	Exchange rate differences	Depreciation, amortisation and impairment losses in the fiscal year	Reclassifications	Disposals	Balance on 31/12/2020	Balance on 31/12/2020	Balance on 31/12/2019
1. Land and buildings	508	-39	543	-	139	873	918	1,012
2. Production equipment and machinery	318	-	130	-	-	448	911	1,038
3. Other plant, operating and office equipment	461	-2	505	-	153	810	1,142	1,171
4. Container fleet	14,462	-	4,700	-	-15	19,178	5,416	10,200
Property, plant and equipment, total	15,749	-41	5,878		277	21,309	8,387	13,421

Non-current assets - Right-of-use

kEUR	Aquisition and production cost					
	Balance on 01/01/2019	Exchange rate differences"	Additions	Reclassifications	Disposals	Balance on 31/12/2019
1. Land and buildings	-	5	1,515	-	-	1,520
2. Production equipment and machinery	2,428	-	13	-1,085	-	1,356
3. Other plant, operating and office equipment	-	3	1,674	-	45	1,632
4. Container fleet	30,573	-	-	-	5,911	24,662
Property, plant and equipment, total	33,001	8	3,202	-1,085	5,956	29,170

Non-current assets - Right-of-use

kEUR	Depreciation, amortisation and impairment losses					Carrying amount		
	Balance on 01/01/2019	Exchange rate differences	Depreciation, amortisation and impairment losses in the fiscal year	Reclassifications	Disposals	Balance on 31/12/2019	Balance on 31/12/2019	Balance on 31/12/2018
1. Land and buildings	-	-1	509	-	-	508	1,012	-
2. Production equipment and machinery	437	-	128	-247	-	318	1,038	1,991
3. Other plant, operating and office equipment	-	1	467	-	7	461	1,171	-
4. Container fleet	14,577	-	5,796	-	5,911	14,462	10,200	15,996
Property, plant and equipment, total	15,014	-	6,900	-247	5,918	15,749	13,421	17,987

The rights of use include assets from finance leases with a net carrying amount of kEUR 5,416 (previous year: kEUR 10,200) attributable to the container fleet as of 31 December 2020. Technical plant and machinery includes assets from finance leases with a net carrying amount as of 31 December 2020 of kEUR 911 (previous year: kEUR 1,038). Plant under construction decreased slightly to kEUR 3,606 as of the balance sheet date (previous year: kEUR 3,656).

The following items of property, plant and equipment serve to collateralise financial liabilities:

- All buildings and land in Kölleda serve as collateral for long-term bank loans (land charge of kEUR 6,672).
- The AN33 property in Würzburg serves as collateral for two long-term bank loans with a land charge of kEUR 14,300.
- The "Heuchelhof" buildings and land in Würzburg serves as collateral for two long-term bank loans with a land charge of kEUR 4,280.
- The photovoltaic plant and a production plant at the Kölleda site with a carrying amount of kEUR 911 (previous year: kEUR 1,038) serve as collateral for the financing from the bank and from the leasing company, respectively. Of the company's other technical plant and machinery, a proportion with a carrying amount of kEUR 9,235 (previous year: kEUR 8,010) serves as collateral for long-term bank loans.
- From the "Other equipment" category, assets amounting to kEUR 1,101 (previous year: kEUR 939) serve as collateral for the company's long-term bank loans.
- The block-type thermal power station at the Würzburg site with a carrying amount of kEUR 587 (previous year: kEUR 605) was pledged as security for the bank's long-term financing.
- The entire container fleet deriving from sale-and-finance-leaseback transactions serve the leasing companies as collateral for the financing they grant.

No indicators of potential impairment were identified. Accordingly, no impairment losses or reversals of impairment losses pursuant to IAS 36 were applied in either the period under review, or in the previous year.

4.2.1.3 Investment property

Non-current assets

kEUR	Aquisition and production cost					Balance on 31/12/2020
	Balance on 01/01/2020	Ex-change rate diffe-rences	Addi-tions	Reclassifi-cations	Dispo-sals	
Investment Property	1,614	-	-	-	-	1,614

Non-current assets

kEUR	Depreciation, amortisation and impairment losses					Carrying amount		
	Balance on 01/01/2020	Ex-change rate diffe-rences	Depreciati-on, amorti-sation and impairment losses in the fiscal year	Reclassifi-cations	Disposals	Balance on 31/12/2020	Balance on 31/12/2020	Balance on 31/12/2019
Investment Property	-	-	-	-	-	-	1,614	1,614

Non-current assets

kEUR	Aquisition and production cost					Balance on 31/12/2019
	Balance on 01/01/2019	Exchange rate differences	Additions	Reclassifications	Disposals	
Investment Property	1,614	-	-	-	-	1,614

Non-current assets

kEUR	Depreciation, amortisation and impairment losses					Carrying amount		
	Balance on 01/01/2019	Exchange rate differences	Depreciation, amortisation and impairment losses in the fiscal year	Reclassifications	Disposals	Balance on 31/12/2019	Balance on 31/12/2019	Balance on 31/12/2018
Investment Property	-	-	-	-	-	-	1,614	1,614

In February 2017, a plot of land including warehouse adjacent to the plot of land that was already acquired in 2016 was purchased in Würzburg to construct an integrated production and administration site there. Due to a market opportunity arising short-term, a further large plot of land along with existing production and administrative buildings was acquired in April 2017 in Alfred-Nobel-Strasse 33 in Würzburg, in order to use it to aggregate the Würzburg locations into a management, technology and logistics headquarters. The merger of the Würzburg locations was completed in 2018.

By contrast with the original planning, the undeveloped land plots acquired in 2016 are held for value appreciation purposes as of 31 December, as the company is currently examining to which future utilisation the land plots are to be allocated. For this reason, these land plots were recognised as of the balance sheet date as "investment property" with a carrying amount of kEUR 1,614. Due to the prices currently obtainable on the market for land of this type and contractual agreements with the City of Würzburg regarding repurchase and resale options, the fair value of the land corresponds to the carrying amount reported. The fair value of investment property is measured according to hierarchy Level 2 in the meaning of IFRS 13.

No indicators of potential impairment were identified. Accordingly, no impairment losses pursuant to IAS 36 were applied in the period under review.

4.2.1.4 Other non-current and current financial assets

Other financial assets

kEUR	Non-current	Current	Balance on 31/12/2020
Investments	3,300	-	3,300
Suppliers with debit balances	-	85	85
Deposits	177	20	197
Miscellaneous	26	822	848
Group, total	3,503	927	4,430

Other financial assets

kEUR	Non-current	Current	Balance on 31/12/2019
Investments	2,283	-	2,283
Suppliers with debit balances	-	79	79
Deposits	165	20	185
Miscellaneous	26	487	513
Group, total	2,474	586	3,060

As of 31 December 2020, other financial assets include the investments in SUMTEQ GmbH recognized at fair value in the amount of kEUR 3,000 (previous year: kEUR 2,283) and ING3D GmbH in the amount of kEUR 300 (previous year: kEUR 0).

The other financial assets are neither overdue nor impaired.

4.2.1.5 Other non-current and current non-financial assets

Other financial assets

kEUR	Non-current	Current	Balance on 31/12/2020
Advance payments on intangible assets	808	-	808
Advance payments on inventories	-	82	82
VAT receivables	-	928	928
Advance payments and accrued income	157	395	552
Miscellaneous	91	141	232
Group, total	1,056	1,549	2,605

Other financial assets

kEUR	Non-current	Current	Balance on 31/12/2019
Advance payments on intangible assets	813	-	813
Advance payments on inventories	-	40	40
VAT receivables	-	875	875
Advance payments and accrued income	200	355	555
Miscellaneous	87	94	181
Group, total	1,100	1,364	2,464

Besides prepayments rendered in relation to intangible assets, other non-financial assets comprise mainly claims to reimbursement of energy tax as well as claims arising from customer relationships.

4.2.1.6 Inventories

Inventories increased by a total of kEUR 939 (previous year: reduction of kEUR 248) due to va-Q-tec's greater level of business activities and the pandemic-related increase in reserve stocks

Inventories

kEUR	31/12/2020	31/12/2019
Raw materials and supplies	4,408	4,730
Work in progress	358	210
Finished products and goods	6,849	5,736
Group, total	11,615	10,676

Inventories as of 31 December 2020 include kEUR 681 of impairment losses (previous year: kEUR 679). All of the changes in valuation allowances were recognised in profit or loss under changes in inventories. No reversals of valuation allowances were applied in either the reporting year or the previous year. The carrying amount of inventories recognised at net realisable value stands at kEUR 1,069 as of 31 December 2020 (previous year: kEUR previous 1,051).

4.2.1.7 Trade receivables

Trade receivables decreased by kEUR 134, from kEUR 6,666 to kEUR 6,532, due to the expansion of va-Q-tec's factoring program to include the trade receivables of the UK subsidiary, despite the significant increase in revenues.

Where a risk of default relates to a customer, specific valuation allowances are applied. The respective business unit head assesses the risk level on the basis of an analysis of specific cases.

In addition, trade receivables are written down applying the simplified model of expected credit losses for receivables in accordance with IFRS 9.

Changes in valuation allowances to trade receivables

kEUR	2020	2019
Balance at 1 January	171	134
Consumption	-	-
Release	92	73
Addition	83	110
Balance at 31 December	162	171

A total of kEUR 86 (previous year: kEUR 105) of the impairment losses presented are impairment losses on receivables that are attributable to individual circumstances. Lifetime expected credit losses of trade receivables amounted to kEUR 76 as of the balance sheet date (previous year: kEUR 66).

va-Q-tec also sold trade receivables with a carrying amount of kEUR 2,893 (previous year: kEUR 632) to third parties on the basis of factoring agreements as part of the factoring program of the German parent company and the UK subsidiary, for which no significant opportunities and risks remain for the Group. These receivables were therefore derecognised in accordance with IFRS 9.3.2.6 (a). Temporary deposits are reported uniformly as other current financial assets in the amount of kEUR 476 as of 31 December 2020 (previous year: kEUR 154). Due to the short-term nature of the trade receivables sold, their fair value approximates to their carrying amount.

For further information about the trade receivables, please refer to the remarks concerning financial instruments (section 4.4) and risk management (section 4.6).

4.2.1.8 Contract assets

In the financial year under review, the company recognized contract assets as follows in addition to trade receivables for contract costs (contract fulfilment costs):

Contract assets

kEUR	31/12/2020	31/12/2019
Contract assets	73	158

Depreciation relating to contract assets amounted to kEUR 126 in the 2020 reporting period (previous year: kEUR 70). No indications existed of impairment to the capitalized assets on the balance sheet date. Due to the small number of individual circumstances, no value adjustment had to be made due to significant expected credit losses.

4.2.1.9 Cash and cash equivalents

The cash and cash equivalents comprise cash balances as well as cash accounts and short-term deposits at banks that had a remaining term of up to three months on addition.

kEUR	31/12/2020	31/12/2019
Current account balances	17,123	7,478
Savings account balances	10	10
Cash balances	1	2
Group, total	17,134	7,490

4.2.2 Equity and liabilities

4.2.2.1 Equity

The consolidated statement of changes in equity provides a separate presentation of the changes in equity and comprehensive income. The components of comprehensive income are presented on an aggregated basis in the statement of comprehensive income.

Issued share capital

The share capital of the parent entity va-Q-tec AG is reported as the issued share capital in the consolidated financial statements. The share capital of va-Q-tec AG amounts to kEUR 13,090 and is divided into 13,089,502 ordinary no par registered shares. The share capital is fully paid in. The shares are listed in the Prime Standard stock market segment of the Frankfurt Stock Exchange. All of the shares carry the same rights and obligations. Each share grants one vote at the general meeting of shareholders. Exceptions to this are shares that the company itself holds (treasury shares), from which no rights accrue to va-Q-tec AG, such as the right to vote at the general meeting of shareholders. As of the balance sheet date, va-Q-tec AG held 13,566 treasury shares. For this reason, the company's issued capital amounts to 13,075,936 shares as of the balance sheet date.

	Number of shares	Nominal value kEUR
Ordinary shares	13,089,502	13,090
Balance on 31/12/2020	13,089,502	13,090
Ordinary shares	13,089,502	13,090
Balance on 31/12/2019	13,089,502	13,090

Approved share capital

By resolution of the Annual General Meeting of 14 August 2020, the Management Board is authorised, with the approval of the Supervisory Board, to increase the company's share capital by up to a total of kEUR 6,545 up to and including 13 August 2025 (Authorised Capital 2020/1), whereby shareholders' subscription rights may be excluded.

Contingent capital

Pursuant to Section 6.5 of the company's bylaws, the share capital is conditionally increased by kEUR 6,500 through issuing up to 6,500,000 new ordinary registered shares (Contingent Capital 2020/1). Contingent Capital 2020/1 increase serves exclusively to grant shares for the exercise of conversion and warrant rights, or upon fulfilment of conversion obligations, to the holders or creditors of convertible bonds, bonds with warrants and/or participating bonds (or combinations of such instruments) (collectively "bonds") issued on the basis of the authorisation resolution of the Annual General Meeting of 14 August 2020 under agenda item 7 letter b).

Treasury shares

No changes occurred to treasury shares in 2020 and the number remains at 13,566 shares.

Additional paid-in capital

Additional paid-in capital mainly comprises shareholders' cash and non-cash capital contributions. Additional paid-in capital amounted to kEUR 46,158 as of the balance sheet date (previous year: kEUR 46,158).

Consolidated total other comprehensive income

Consolidated total other comprehensive income includes the reserve arising from the foreign currency translation of the foreign subsidiaries' financial statements.

Furthermore, the effective portions of hedging relationships and the corresponding deferred taxes are recognized in other comprehensive income in the context of cash flow hedge accounting.

Retained earnings

Retained earnings mainly comprise cumulative profits carried forward, differential amounts arising from the first-time application of IFRS, and the share of periodic consolidated earnings that is attributable to the owners of va-Q-tec AG.

4.2.2.2 Non-current and current provisions

Provisions

kEUR	Warranties	Archiving	Litigation costs	Other	Total
Balance on 01/01/2020	20	17	72	94	203
Addition	2	-	136	32	170
Utilisation	2	-	-	16	18
Release	-	-	26	43	69
Balance on 31/12/2020	20	17	182	67	286
Non-current	20	17	-	59	96
Current	-	-	182	8	190

Provisions

kEUR	Warranties	Archiving	Litigation costs	Other	Total
Balance on 01/01/2019	35	17	45	44	141
Addition	20	-	72	50	142
Utilisation	35	-	45	-	80
Release	-	-	-	-	-
Balance on 31/12/2019	20	17	72	94	203
Non-current	20	17	-	36	73
Current	-	-	72	58	130

Provisions for litigation costs include the expected costs from both current and pending litigation. The other provisions are mainly provisions for pending losses arising from sales of products to customers where such sales have failed to cover their costs, and provisions for open services by suppliers.

The company refrained from discounting non-current provisions for reasons of materiality.

4.2.2.3 Non-current and current liabilities from bonds issued

In November 2020, va-Q-tec issued a bond with a nominal volume of CHF 25 million. The bond carries a coupon of 3.75% p.a. and has a term of five years. The company recognized the bond at its fair value less directly attributable transaction costs on the trade date. Subsequent measurement is at amortised cost applying the effective interest method. The bond is translated at the closing rate.

va-Q-tec has hedged the currency risks with derivative hedging transactions (cross-currency swaps/CCS) for the portion of CHF 24 million over the term of the bond. The CCS thereby eliminate the EUR-CHF currency risk arising from the interest and redemption payments for the entire term of the bond for the secured portion. The company applies hedge accounting in accordance with IFRS 9 for these hedging transactions. The main parameters of the currency swaps are as follows:

kEUR	Nominal amount CHF	Nominal amount EUR	Start of term	Maturity date	Coupon CHF	Coupon EUR	Hedging rate CHF / EUR
Basic transaction	24,000	22,218	30/11/2020	30/11/2025	3.75 %		
CCS 1	12,000	11,059	01/12/2020	30/11/2025		4.06 %	1.08505
CCS 2	12,000	11,074	01/12/2020	30/11/2025		4.07 %	1.08360

The agreed CCSs are based directly on the underlying transaction. The term, interest payment dates and nominal volume match.

The bond serves further investments in the container and box fleets, the scheduled refinancing of existing financial liabilities and general financing purposes.

4.2.2.4 Non-current and current bank borrowings

The bank borrowings consist of long-term investment loans to finance land, buildings and plants, and short-term current account overdrafts to finance current assets.

Non-current investment loans are secured through land charges and the collateral assignment of machinery and fixtures. Most of the long-term loans have terms of between 15 and 20 years with fixed interest rates. The risk arising from variable-interest loans was partly hedged through interest-rate swaps. Hedge accounting according to IFRS 9 is not applied in this context.

The existing multi-bank agreement of va-Q-tec AG with the principal banks was last extended in November 2020 under comparable conditions and is currently limited until 31 December 2023. This financing facility amounts to kEUR 11,000 and covers the overdrafts of both the parent company and the UK subsidiary.

The inventories of va-Q-tec AG serve as collateral for the credit lines. The company has also committed itself to maintaining a minimum equity ratio of 30% as well as minimum EBITDA metrics.

4.2.2.5 Non-current and current financial liabilities

Financial liabilities

kEUR	Non-current	Current	Balance on 31/12/2020
Lease liabilities	3,410	2,635	6,045
Derivative financial instruments	144	-	144
Deferred liabilities for outstanding invoices	-	3,403	3,403
Accrued liability for financial auditors	-	87	87
Debtors with credit balance	-	173	173
Miscellaneous	303	136	439
Group, total	3,857	6,434	10,291

Financial liabilities

kEUR	Non-current	Current	Balance on 31/12/2019
Lease liabilities	5,254	2,883	8,137
Derivative financial instruments	19	-	19
Deferred liabilities for outstanding invoices	-	2,975	2,975
Accrued liability for financial auditors	-	114	114
Debtors with credit balance	-	155	155
Miscellaneous	60	740	800
Group, total	5,333	6,867	12,200

The leasing liabilities arise mainly from leases to finance the UK subsidiary's container fleet assets, which until the end of 2018 were financed chiefly through sale-and-finance-leaseback transactions, as well as production plants at the locations in Köllda and Würzburg. Also included are liabilities from leasing agreements for office and warehouse space and for company and service vehicles. The leased assets are reported as rights of use assets under non-current assets.

The derivative financial instruments item includes the negative market values from interest rate swaps to hedge variable-interest non-current bank borrowings in the amount of kEUR 7 (previous year: kEUR 19) as well as the negative market values from cross-currency swaps to hedge the currency risks in connection with the bond issued in Swiss francs in the amount of kEUR 137 (previous year: kEUR 0).

4.2.2.6 Other non-current and current non-financial liabilities

Non-financial liabilities

kEUR	Non-current	Current	Balance on 31/12/2020
Special items for grants	4,185	385	4,570
Special items for deferred container profits	1,162	1,651	2,813
Employee bonuses	-	1,049	1,049
Liabilities for unutilised vacation	-	297	297
Prepayments received for orders	-	335	335
Liabilities from other taxes	-	265	265
VAT liabilities	-	65	65
Miscellaneous other non-financial liabilities	78	548	626
<i>Other personnel liabilities</i>	-	250	250
<i>Liabilities for social insurances</i>	-	128	128
<i>Miscellaneous</i>	78	170	248
Group, total	5,425	4,595	10,020

Non-financial liabilities

kEUR	Non-current	Current	Balance on 31/12/2019
Special items for grants	3,734	360	4,094
Special items for deferred container profits	2,813	2,397	5,210
Employee bonuses	-	880	880
Liabilities for unutilised vacation	-	147	147
Prepayments received for orders	-	443	443
Liabilities from other taxes	-	273	273
VAT liabilities	-	164	164
Miscellaneous other non-financial liabilities	-	389	389
<i>Other personnel liabilities</i>	-	246	246
<i>Liabilities for social insurances</i>	-	85	85
<i>Miscellaneous</i>	-	58	58
Group, total	6,547	5,053	11,600

Government grants

Between 2017 and 2020, the company received investment grants from the government of Lower Franconia for investments in the new location in Würzburg. The investment grants served the construction investments, machinery and facilities as well as the overall investment for the building in Würzburg. In addition, the company received investment grants from Thüringische Aufbaubank between 2008 and 2020 for the various construction phases, machinery and equipment at the Kölleda site. These grants do not need to be repaid as long as the conditions are complied with, as expected.

Special item for grants

kEUR	2020	2019
Balance at 1 January	4,094	4,536
Addition	961	-
Release	485	442
Balance at 31 December	4,570	4,094
- of which non-current	4,185	3,734
- of which current	385	360

Deferred income from sale-and-finance-leaseback transactions

Until 31 December 2018, containers used in the container fleet were sold by means of sale-and-finance-leaseback transactions. Profit margins in excess of manufacturing costs arising from the sale of containers were recognised as deferred income under liabilities (special item for deferred container profits). Until the end of 2023, this deferred income will be released to other operating income over the containers' respective five-year useful life. With the application of the new standard on accounting for leases IFRS 16, no profits arose from 1 January 2019 that may be deferred as special items on the liabilities side.

4.2.2.7 Trade payables

Trade payables are recognised at amortised cost. Their balance sheet values essentially correspond to their market values. They are due within one year.

4.2.2.8 Liabilities from contracts with customers

In the financial year under review, the company accounted for obligations arising from contracts with customers as follows:

Liabilities from contracts with customers

kEUR	31/12/2020	31/12/2019
Liabilities from contracts with customers	40	308

Contract liabilities include in particular obligations from advance payments received and provisions for customer bonuses.

4.3 CONSOLIDATED STATEMENT OF CASH FLOWS

The cash flow statement shows how the cash position has changed at va-Q-tec over the course of the reporting year due to cash inflows and outflows. Pursuant to IAS 7 (Statement of Cash Flows), a distinction is drawn between cash flows from operating, investing and financing activities. The change in liquid assets due to changes in exchange rates is presented separately.

The cash and cash equivalents in the cash flow statement comprise all cash positions reported on the statement of financial position, as well as cash accounts and short-term deposits at banks that have a remaining term of up to three months on addition, are subject to only minor value fluctuations, and their availability is not restricted.

The cash inflows and outflows from investing and financing activities are presented in accordance with the direct method. The cash inflows and outflows from investing activities comprise additions to intangible assets as well as disposals of, or additions to, property, plant and equipment. Financing activities include cash inflows from real estate and plant financing, cash outflows from the repayment of bank borrowings, as well as ingoing and outgoing payments for finance leases. In the previous year, cash inflows from sale-and-finance-leaseback transactions as well as investment allowances and grants received are shown within separate items within cash flows from financing activities.

By contrast, cash inflows and cash outflows from operating activities are derived indirectly, starting from the consolidated net profit. To this end, the consolidated net profit is adjusted to reflect non-cash expenses and income, primarily depreciation, amortisation, impairment losses, deferred tax, the release of special items, the measurement of financial instruments, and changes in provisions. These adjustments are supplemented by changes in other assets and liabilities, as well as working capital.

Investing and financing processes that have not resulted in a change in cash and cash equivalents are not reflected in the cash flow statement.

Reconciliation of liabilities from financing activities in accordance with IAS 7

	Carrying amount 31/12/2019	Cash transactions	Non-cash transactions			Carrying amount 31/12/2020
			Currency translation	Change in valuation	Other	
kEUR						
Bonds	-	21,961	84	-	19	22,064
Bank borrowings	34,244	-5,085	-	-	-70	29,089
Leases	8,137	-3,026	-48	-	982	6,045
Financial liabilities	42,381	13,850	36	-	931	57,198

Reconciliation of liabilities from financing activities in accordance with IAS 7

kEUR	Carrying amount 31/12/2018	Cash transactions	Non-cash transactions			Carrying amount 31/12/2019
			Currency translation	Change in valuation	Other	
Bank borrowings	34,132	105	-	-	7	34,244
Leases	8,054	-3,077	-	-	3,160	8,137
Financial liabilities	42,186	-2,972	-	-	3,167	42,381

4.4 FINANCIAL INSTRUMENTS

The following table presents financial instruments with their carrying amounts and fair values, analysed by IFRS 9 measurement categories. All of the fair values are allocated to one of the measurement levels of the fair value hierarchy. Where no corresponding allocation has occurred, it is assumed that the carrying amount corresponds to fair value. This relates mainly to trade receivables, cash and cash equivalents, miscellaneous current financial assets, trade payables and miscellaneous current financial liabilities, all of which have short remaining terms.

Section 1.2 "Basis of preparation of the financial statements" provides a definition of the fair value hierarchy levels. All allocations to levels are reviewed at the end of the reporting period. No reclassifications between levels occurred in either the reporting year or the previous year.

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy.

Values by measurement categories per 31/12/2020

kEUR	Meas- urement category as per IFRS 9	Carrying amount		Fair value	of which: fair value		
		Aquisition cost	Fair value		Level 1	Level 2	Level 3
		31/12/2020	31/12/2020	31/12/2020			
Financial Assets							
Investments	FVtPL	-	3,300	3,300	-	3,300	-
Trade accounts receivables	AC	1,873	-	1,873	-	-	-
Trade accounts receivables	FVtPL	-	4,659	4,659	-	4,659	-
Other financial assets	AC	1,130	-	1,125	-	-	-
Cash and cash equivalents	AC	17,134	-	17,134	-	-	-
Total		20,137	7,959	28,091			

kEUR	Meas- urement category as per IFRS 9	Carrying amount		Fair value	of which: fair value		
		Aquisition cost	Fair value		Level 1	Level 2	Level 3
		31/12/2020	31/12/2020	31/12/2020			
Financial liabilities							
Bonds	AC	22,064	-	23,552	23,552	-	-
Bank borrowings	AC	29,089	-	29,760	-	29,760	-
Trade payables	AC	5,978	-	5,978	-	-	-
Other financial liabilities	-	-	-	-	-	-	-
of which: derivative financial instruments with hedging relationship	FVtOCI	-	137	137	-	137	-
of which: derivative financial instruments without hedging relationship	FVtPL	-	7	7	-	7	-
of which: miscellaneous other financial liabilities	AC	4,142	-	4,133	-	4,133	-
Total		61,273	144	63,567			

Of which aggregated by measurement category as per IFRS 9

kEUR		Carrying amount	Fair value
Amortised Cost (asset)	AC	20,137	20,132
At fair value through P&L (asset)	FVtPL	7,959	7,959
Amortised Cost (liability)	AC	61,273	63,423
At fair value through OCI (liability)	FVtOCI	137	137
At fair value through P&L (liability)	FVtPL	7	7

Values by measurement categories per 31/12/2019

kEUR	Meas- urement category as per IFRS 9	Carrying amount		Fair value	of which: fair value		
		Aquisition cost	Fair value		Level 1	Level 2	Level 3
		31/12/2019	31/12/2019	31/12/2019			
Financial Assets							
Investments	FVtPL	-	2,283	2,283	-	2,283	-
Trade accounts receivables	AC	5,228	-	5,228	-	-	-
Trade accounts receivables	FVtPL	-	1,438	1,438	-	1,438	-
Other financial assets	AC	777	-	772	-	-	-
Cash and cash equivalents	AC	7,490	-	7,490	-	-	-
Total		13,495	3,721	17,211			
Financial liabilities							
Bank borrowings	AC	34,244	-	35,008	-	35,008	-
Trade payables	AC	4,485	-	4,485	-	-	-
Other financial liabilities	-	-	-	-	-	-	-
of which: derivative financial instruments without hedging relationship	FVtPL	-	19	19	-	19	-
of which: miscellaneous other financial liabilities	AC	4,352	-	4,340	-	4,340	-
Total		43,082	19	43,852			

Of which aggregated by measurement category as per IFRS 9

kEUR		Carrying amount	Fair value
Amortised Cost (asset)	AC	13,495	13,490
At fair value through P&L (asset)	FVtPL	3,721	3,721
Amortised Cost (liability)	AC	43,082	43,833
At fair value through P&L (liability)	FVtPL	19	19

The fair value of the bond issued by va-Q-tec AG is determined on the basis of the quoted, unadjusted price on an active market and is therefore assigned to measurement Level 1.

The fair value of Level 2 interest-bearing bank borrowings and, in the previous year, finance lease liabilities is derived as the present value of the expected future cash flows. They are discounted at market interest rates on the balance sheet date. In the case of variable interest liabilities, the carrying amounts generally correspond to fair values. The fair value measurement of the investments in SUMTEQ GmbH and ING3D GmbH as of 31 December 2020 was based on closely related transactions in the financial year of the capital increases carried out by these companies and thereby on observable market prices (measurement Level 2).

The fair value of Level 2 interest-rate swaps is calculated by discounting expected future cash flows on the basis of market interest rates valid on the respective reporting date for the contracts' remaining terms. The fair value of the cross-currency swaps assigned to measurement Level 2 is determined on the basis of the current reference rates of the European Central Bank applicable on the balance sheet date. This is realized by taking into account forward premiums and discounts for the respective remaining term of the contracts compared to the contracting foreign exchange rate.

4.5 NET RESULT FROM FINANCIAL INSTRUMENTS

The net result relating to financial instruments as presented in the consolidated income statement is composed as follows:

2020 net results from

Measurement category as IFRS 9 / IFRS 16 in kEUR	Interest income	Interest expense	Impairment losses	Subsequent measurement at fair value	Currency translation
Amortised Cost (asset)	-	-	-	-	-771
At fair value through P&L (assets)	-	-	-	647	-
Amortised Cost (liability)	-	-888	-	-	-16
At fair value through P&L (liability)	-	-	-	12	-
IFRS 16	-	-383	-	-	-
Other	-	-	-	-	-34
Total	-	-1,271	-	659	-821

2019 net results from

Measurement category as IFRS 9 / IFRS 16 in kEUR	Interest income	Interest expense	Impairment losses	Subsequent measurement at fair value	Currency translation
Amortised Cost (asset)	-	-	-	-	104
At fair value through P&L (assets)	-	-	-	1,771	-
Amortised Cost (liability)	-	-705	-	-	-31
At fair value through P&L (liability)	-	-	-	16	-
IFRS 16	-	-309	-	-	-1
Other	-	-65	-	-	2
Total	-	-1,079	-	1,787	74

4.6 RISK MANAGEMENT

As a company active internationally, va-Q-tec is exposed to various risks during the course of its ordinary business activities, including credit, liquidity, and market risks. Market risks particularly result from changes to exchange rates and interest rates. Financial risk management measures are designed to manage and limit these market risks within the scope of operating and financial activities. Depending on the risk assessment, derivative hedging instruments are deployed, although generally only cash flow risks are hedged. Derivative financial instruments are used for operational hedging purposes, and are consequently not held for trading. To reduce default risk, hedging transactions are entered into only with financial institutions with excellent credit ratings. In individual cases, hedge accounting in accordance with IFRS 9 is applied in order to avoid fluctuations in earnings from changes in the market value of derivative financial instruments.

The basic principles of the financial policy are regularly controlled by the Management Board and monitored by the Supervisory Board.

Credit risks

Credit risk is the risk that business partners will not be able to meet their contractual obligations, and that the va-Q-tec Group will incur a financial loss as a consequence. In the course of its operating activities, the Group is exposed to default risk, especially in the case of trade receivables, as well as risks as part of its financing activities, including its derivative financial instruments.

The credit risk from trade receivables is managed at the company level (i.e. locally), and monitored constantly. Identifiable default risks applying to financial assets are reflected through impairment losses.

The maximum credit risk on the financial assets corresponds to the carrying amount recognised on the statement of financial position. The maximum credit risk stood at kEUR 7,662 as of the 31 December 2020 reporting date (previous year: kEUR 7,443).

In accordance with IFRS 9, valuation allowances for expected credit losses ("expected loss model") are recognised for all financial assets measured at amortized cost and for debt instruments measured at fair value through equity.

In principle, IFRS 9 provides for a three-stage procedure for this purpose. Risk provisions are formed either on the basis of the expected 12-month credit losses (stage 1) or on the basis of the expected credit losses over the term if the credit risk has increased significantly since initial recognition (stage 2) or if an impaired credit quality is determined (stage 3). For the majority of financial assets, including trade receivables that do not contain a significant financing component, the simplified procedure is applied. In this context, expected credit losses are always determined over the entire term of the financial instruments.

The application of the simplified procedure results in the following default risk classifications for the financial assets:

Credit risk exposure of financial assets 2020

kEUR	Trade receivables	Contract assets	Other financial assets	Cash and cash equivalents
credit risk rating grade 1	-	-	927	17,134
credit risk rating grade 2	6,617	73	203	-
credit risk rating grade 3	77	-	-	-
Total	6,694	73	1,130	17,134

Credit risk exposure of financial assets 2019

kEUR	Trade receivables	Contract assets	Other financial assets	Cash and cash equivalents
credit risk rating grade 1	-	-	586	7,490
credit risk rating grade 2	6,728	158	191	-
credit risk rating grade 3	109	-	-	-
Total	6,837	158	777	7,490

Individual value adjustments are made in the event of corresponding individual circumstances and risk indications. Both historical data, such as historical default rates, and forward-looking information, such as individual and macroeconomic conditions, are included in determining the amount of valuation allowances. For the initial determination of the default rates, data from external providers was utilised, and also determined based on actual defaults. In future, this information will be determined solely on the basis of expected defaults.

The default of a counterparty results in the value adjustment of all open positions with the counterparty. In this context, the default is determined on the basis of an individual assessment, for example in the event of conspicuous changes in payment behaviour or insolvency filing. A financial instrument is derecognised when a reasonable evaluation cannot assume that a financial asset will be recoverable in whole or in part, for example after insolvency proceedings have ended or subject to other local conditions.

For the unimpaired trade receivables, value adjustments were made in accordance with IFRS 9 in the amount of the expected credit losses of kEUR 76 (previous year: kEUR 66). The recoverability of receivables that are not overdue is regarded as very high. This assessment is due, above all, to the long-standing business relationships with most buyers, and our customers' credit ratings. The other financial assets are neither overdue nor impaired.

Due to the relatively high concentration of sales revenue on a few major customers, the sales function focuses to a great extent on acquiring new customers in all market areas addressed by va-Q-tec.

Liquidity risks

Liquidity risk i.e. the risk that va-Q-tec is unable to meet its financial obligations, is limited through the creation of the requisite financial flexibility, and through an effective cash management system. To manage its future liquidity position, va-Q-tec employs corresponding liquidity planning instruments. No liquidity bottlenecks were identifiable as of the reporting date. Unutilised overdraft lines existed were available to a sufficient extent.

Specific liquidity risks for the Group arise from the relatively high proportion of individual major customers with which no long-term contracts exist, and such customers' theoretical default risks or risks of departure, as well as from potential repayment obligations to banks given non-compliance with covenants, and in relation to development agencies, given non-compliance with subsidy terms. The management steers these potential liquidity risks through targeted commercial, financial and organisational measures.

The following lists show the contractually agreed, undiscounted interest and principal payments for the non-derivative and derivative financial liabilities as per IFRS 7. If the maturity date is not fixed, the liability is related to the earliest due date. Interest payments with variable interest yield are taken into account according to the terms applicable as of the reporting date. We mainly assume that the cash outflows will not occur earlier than shown.

The following table includes the repayment amount (including assumed future interest payments to be rendered) at the respective stated maturity date:

2020 | Repayment amounts on respective due date

kEUR	Other financial liabilities						Total
	Bonds	Bank borrowings	Lease liabilities	Derivative financial instruments	Miscellaneous other financial liabilities	Trade payables	
2021	865	6,411	2,755	4	4,107	5,973	20,115
2022	865	5,847	2,198	-	-	-	8,910
2023	865	1,857	1,001	-	-	-	3,723
2024	865	2,404	243	-	-	-	3,512
2025	23,924	1,310	46	-	-	-	25,280
2026 and later	-	14,663	-	-	-	-	14,663
Total							
31/12/2020	27,384	32,492	6,243	4	4,107	5,973	76,203

2019 | Repayment amounts on respective due date

kEUR	Other financial liabilities					Total
	Bank borrowings	Lease liabilities	Derivative financial instruments	Miscellaneous other financial liabilities	Trade payables	
2020	11,963	3,074	10	3,980	4,469	23,496
2021	3,997	1,880	4	60	-	5,941
2022	2,806	2,114	-	-	-	4,920
2023	1,854	1,052	-	-	-	2,906
2024	1,442	391	-	-	-	1,833
2025 and later	15,973	11	-	-	-	15,984
Total 31/12/2019	38,035	8,522	14	4,040	4,469	55,080

Collateral in the form of land charges on land and buildings at the Kölleda site and at the new headquarters in Würzburg, collateral assignments of machinery and installation items, as well as collateral for finance leases in the form of production plants exist for va-Q-tec loans and bank overdrafts utilised as of the reporting date. Above and beyond this, the UK subsidiary's containers, which are leased as part of the container fleet, are assigned as collateral for finance leases. The current account lines used under the multi-bank agreement are collateralised by inventories as of the balance sheet date. Furthermore, va-Q-tec AG has committed itself to maintaining a minimum equity ratio as well as minimum EBITDA metrics.

Currency risks

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in exchange rates. va-Q-tec is exposed to this risk mainly from its operating activities (if revenues and/or expenses denominated in a currency differing from the functional currency of the respective Group company). Where financially feasible, va-Q-tec hedges its significant exchange rate risks by employing forward currency transactions. The hedging of value fluctuations of future cash flows from expected transactions involves planned costs denominated in foreign currency. Differences caused by exchange rates when financial statements are translated into the Group currency are not taken into consideration.

For the disclosure of market risks, IFRS 7 requires sensitivity analyses that show how changes to relevant risk variables (e.g. exchange rates, interest rates) might affect earnings and equity. To gauge periodic effects, a potential change in the risk variables is applied to the financial instruments position on the reporting date. This approach assumes that this year-end position is a representative for the financial year concerned.

The following sensitivity analysis is based on USD, GBP, CHF, SGD and KRW as the significant foreign currencies for the va-Q-tec Group. The analysis is based on the status as of 31 December 2020 of the positions of receivables, liquid assets and liabilities denominated in USD, GBP, CHF, SGD and KRW. Effects on consolidated results and equity were calculated that are derived from the simulated USD, GBP, CHF, SGD and KRW exchange rates as of the reporting date.

The following currency scenarios arise:

2020 | Change in equity effectivities

kEUR	USD	GBP	CHF	KRW	SGD	Total
+ 100 basis points	255	25	40	28	46	394
- 100 basis points	-311	-31	-49	-35	-57	-483

2019 | Change in equity effectivities

kEUR	USD	GBP	CHF	KRW	SGD	Total
+ 100 basis points	287	30	99	19	8	443
- 100 basis points	-287	-30	-99	-19	-8	-443

Based on the valuation as of 31 December 2020, a sensitivity analysis was performed to determine the change in equity in the event of a parallel shift in the foreign currency valuation of the Swiss franc by 100 basis points for each of the secured portion of the bond and the related hedges. An appreciation of the CHF against the EUR by 100 basis points as of the balance sheet date would reduce other comprehensive income by kEUR 2,562 without affecting profit or loss. A depreciation of the CHF against the EUR would increase other comprehensive income in equity by kEUR 1,942 without affecting profit or loss.

Interest rate risks

Interest rate risk is the risk that the fair value or future cash flow of a financial instrument will fluctuate due to changes in market interest rates. The risk of fluctuations in market interest rates to which the Group is exposed results primarily from variable rate loans and overdrafts. To a minor extent, the Group manages its interest rate risk in relation to financial liabilities through employing interest rate derivatives in the form of interest rate swaps for long-term loans, whereby no hedge accounting is applied.

Interest rate risks according to IFRS 7 are calculated by means of a sensitivity analysis. The following sensitivity analysis includes both the effects on the net interest result due to variable interest financial instruments existing on the respective reporting date, and the value changes of the interest-rate swaps that have been concluded. The effects of variable market interest rates on consolidated results in equity were calculated.

If the market interest-rate level as of the reporting date had been 100 basis points higher, the consolidated profit/loss would have been kEUR 6 lower (previous year: kEUR 46 lower), and consolidated equity would have been kEUR 6 lower (previous year: kEUR 46 lower). If the market interest-rate level as of the reporting date had been 100 basis points lower, the consolidated profit/loss would have been kEUR 1 higher (previous year: kEUR 41 higher), and consolidated equity would have been kEUR 1 higher (previous year: kEUR 41 higher).

Capital management

The primary objective of capital management at va-Q-tec is the continuous and long-term enhancement and growth of the company's value, and the securing of its liquidity. A high credit rating and a good equity ratio represent important building blocks to this end. The Group manages its capital structure and implements adjustments while taking changes in economic conditions into account.

va-Q-tec regularly monitors its capital on the basis of various key figures. The equity ratio represents an important key indicator in this context. The Management Board has defined a range for the equity ratio of between 35 and 40% as the medium-term target. The equity ratio stood at 35% as of the balance sheet date (previous year: 40%), thereby meeting in the 2020 financial year the target set by the Management Board. According to current plans, it is assumed that the company's equity ratio will remain within the aforementioned 35-40% range.

With the bond issue and the current account overdrafts available as part of the multi-bank agreement that was extended in November 2020, va-Q-tec AG has created a solid liquidity basis for the next years' business planning.

As of 31 December 2020, financial liabilities of the parent company va-Q-tec AG in amount of kEUR 598 (previous year: kEUR 1,096) were subject to financial covenants relating to the separate and consolidated financial statements of va-Q-tec AG. The covenant regulations for the non-current loans require a minimum equity ratio of 30% in each case, in addition to land charges and other collateral. This covenant was complied with. Under the terms of the multi-bank agreement, va-Q-tec has made its inventories available to the syndicate banks as collateral for the credit lines, and has undertaken to maintain a minimum equity ratio of 30% as well as minimum EBITDA metrics. Financial liabilities of va-Q-tec Ltd. (UK) from finance leases and loans of kEUR 3,236 as of 31 December 2020 (previous year: kEUR 6,019) have been subject to a covenant based on the separate financial statements of va-Q-tec Ltd. (UK). This covenant requires equity as recognised on the balance sheet of at least kEUR 2,500 as of the balance sheet date. This covenant was met as of the balance sheet date, as in the previous year. In addition, the company has undertaken not to fall below a liquidity level of kEUR 5,000 for the term of the bond. As of the balance sheet date, the liquidity available at short notice, taking the unutilized current account line into account, amounts to kEUR 27,992, thereby fulfilling the commitment that has been entered into.

5 OTHER DISCLOSURES

5.1 SEGMENT INFORMATION

For the purpose of segment reporting, the activities of the va-Q-tec Group are separated by operating segments based on the regulations of IFRS 8 (Operating Segments). The structure is based on internal management and reporting on the basis of legal entities. The va-Q-tec Group operates in the three reporting segments of "va-Q-tec AG", "va-Q-tec Ltd. (UK)" and "Other".

The activities of the German and UK reporting segments are unchanged compared with the previous year. A fulfilment centre (conditioning and cleaning of rental boxes) is operated in Switzerland. In addition to purchasing and sales services, the Korean subsidiary also generates independent third-party sales for the Group. In addition to sales services, the subsidiaries in the USA, Uruguay, Singapore and Japan generate independent third-party sales.

The reporting and reporting management of the individual segments at va-Q-tec is directly according to IFRS. Insofar they are material, the supply and service relationships between the reporting segments are presented on a consolidated basis.

Starting from the total sum of the reporting segments, intragroup transactions are eliminated in the "Consolidation" column, particularly taking into account effects from the sale-and-finance-leaseback transactions.

Segment reporting FY 2020

	va-Q-tec AG	va-Q-tec Ltd. (UK)	Other	Operating divisions, total	Conso- lidation	Group
kEUR	IFRS	IFRS	IFRS			
External revenue	34,847	28,776	8,483	72,106	-	72,106
Internal revenue	14,516	1,262	1,285	17,063	-17,063	-
Total sales revenue	49,363	30,038	9,768	89,169	-17,063	72,106
At a point in time	46,719	-	7,228	53,947	-14,497	39,450
Over time	2,644	30,038	2,540	35,222	-2,566	32,656
Total income	56,698	30,918	9,831	97,447	-13,315	84,132
Cost of materials and services	-22,879	-12,386	-6,067	-41,332	8,581	-32,751
Personnel expenses	-21,797	-3,100	-2,125	-27,022	911	-26,111
Other operating expenses	-10,304	-4,084	-1,928	-16,316	2,445	-13,871
EBITDA	1,718	11,348	-289	12,777	-1,378	11,399
Depreciation, amortisation and impairment losses	-4,889	-8,131	-618	-13,638	1,339	-12,299
EBIT	-3,171	3,217	-907	-861	-39	-900
Result from equity accounted investments	-	-	-	-	-	-
Result from fair value valuation of investments	-	-	-	-	647	647
Financial income	271	-	-	271	-259	12
Financial expenses	-916	-562	-52	-1,530	259	-1,271
EBT	-3,816	2,655	-959	-2,120	608	-1,512
Investments 31/12/2020	8,849	8,282	963	18,094	-3,812	14,282
Assets 31/12/2020	115,812	27,936	6,776	150,524	-31,456	119,068
Non-current assets 31/12/2020	58,684	18,660	1,529	78,873	-6,282	72,591
Liabilities 31/12/2020	62,989	20,598	7,984	91,571	-13,758	77,813
Employees ¹⁾	440	49	30	519	-	519

¹⁾ The number of employees includes Management Board members and trainees (2020: 17; previous 17).

Segment reporting FY 2019

	va-Q-tec AG	va-Q-tec Ltd. (UK)	Other	Operating divisions, total	Conso- lidation	Group
kEUR	IFRS	IFRS	IFRS			
External revenue	34,442	24,917	5,308	64,667	-	64,667
Internal revenue	9,586	1,338	1,203	12,127	-12,127	-
Total sales revenue	44,028	26,255	6,511	76,794	-12,127	64,667
At a point in time	40,232	-	3,979	44,211	-9,355	34,856
Over time	3,796	26,255	2,532	32,583	-2,772	29,811
Total income	48,717	26,790	6,635	82,142	-9,325	72,817
Cost of materials and services	-19,591	-12,171	-3,828	-35,590	6,597	-28,993
Personnel expenses	-18,772	-2,605	-1,601	-22,978	589	-22,389
Other operating expenses	-9,345	-3,349	-1,392	-14,086	2,324	-11,762
EBITDA	1,009	8,665	-186	9,488	185	9,673
Depreciation, amortisation and impairment losses	-4,636	-7,804	-526	-12,966	734	-12,232
EBIT	-3,627	861	-712	-3,478	919	-2,559
Result from equity accounted investments	-	-	-	-	-68	-68
Result from fair value valuation of investments	-	-	-	-	1,771	1,771
Financial income	282	-	-	282	-266	16
Financial expenses	-738	-559	-49	-1,346	267	-1,079
EBT	-4,083	302	-761	-4,542	2,623	-1,919
Investments 31/12/2019	7,298	7,825	1,557	16,680	-4,398	12,282
Assets 31/12/2019	101,723	27,649	5,004	134,376	-28,587	105,789
Non-current assets 31/12/2019	54,919	18,648	1,369	74,936	-3,824	71,112
Liabilities 31/12/2019	44,958	23,258	5,347	73,563	-10,480	63,083
Employees ¹⁾	398	41	25	464	-	464

¹⁾ The number of employees includes Management Board members and trainees (2019: 17; previous year: 16).

In the 2020 financial year, va-Q-tec AG did not have any customers accounting for more than 10% of total consolidated revenue. In the previous year, revenues of kEUR 8,425 were generated with one customer, whose share of total revenues thereby exceeded 10%.

The revenues are distributed geographically as follows:

kEUR	2020	2019
Germany	20,923	20,827
Rest of European Union	20,699	19,156
Other	30,484	24,684
Group, total	72,106	64,667

The allocation of revenues with external customers to a geographic region is based on the customer's location. The geographic allocation of non-current assets is based on the domicile of the asset's owner, and is shown in the segment reporting according to legal entities presented above.

The allocation of revenues to Products, Systems and Services is as follows: revenues of kEUR 18,303 (previous year: kEUR 18,440) were generated with Products (vacuum insulation panels and individually sold heating storage components) in the financial year under review. The Group generated kEUR 19,520 of revenues with Systems (thermal packaging and related components) in the reporting year (previous year: kEUR 15,054). Revenues of kEUR 32,657 were generated from Services in the financial year under review (previous year: kEUR 29,811). Other revenues amounted to kEUR 1,626 in the financial year (previous year: kEUR 1,362).

5.2 CONTINGENCIES AND OTHER FINANCIAL OBLIGATIONS

Other financial obligations exist that mainly arise from purchase commitments and marketing costs.

The due dates of the other financial obligations are as follows:

Other financial obligations (contingent liabilities)

kEUR	31/12/2020	31/12/2019
Group, total	10,246	1,746
due within one year	7,627	1,207
due between one and five years	2,619	539
due after five years	-	-

Moreover, a bill guarantee line in an amount of kEUR 24 (previous year: kEUR 24) exists with Commerzbank AG, under which va-Q-tec AG is liable for lending to third parties.

The stock option program for va-Q-tec staff introduced in December 2017, which includes the rendering of part of the price paid for demonstrably purchased va-Q-tec shares, led to outgoing payments of kEUR 2 in 2020 (previous year: kEUR 8). The program was extended until 31 December 2021, which also leads to a minor scope of contingent liabilities in 2021. The "va-Q-share" share purchase program of va-Q-tec AG forms part of the additional benefits for company employees aimed at the company's sustained a positive development and growth with individual contractual target agreements. The va-Q-share Plus program creates a long-term incentive for participants to commit themselves to the company's performance and success. For this purpose, program participants are granted a monetary subsidy for them to independently purchase the company's shares in the market. The program has no material effects or payment obligations.

5.3 SHARE-BASED PAYMENT

va-Q-tec currently has no arrangements for equity-settled share-based payment transactions with employees.

5.4 RELATED PARTIES

IAS 24 requires the disclosure of the existence of related companies, and transactions with, and outstanding balances in relation to, related companies, if they are not already included as consolidated companies in the consolidated financial statements, as well as related individuals. va-Q-tec AG is the Group's ultimate parent entity.

As a matter of principle, key management personnel and their close relatives are regarded as related individuals at the va-Q-tec Group. Key management personnel comprised the members of the Management and Supervisory Boards of va-Q-tec AG, as well as the managing directors of the foreign subsidiaries in Korea and the UK.

Related companies within the va-Q-tec Group are regarded as those companies or groups of shareholders over which va-Q-tec AG, the Management and Supervisory Board members and their close family relatives, can at least exercise significant influence, or which, for their part, can exert significant influence over va-Q-tec.

Key management personnel of the va-Q-tec Group

Management Board	
Dr. Joachim Kuhn	since 01/04/2001
Stefan Döhmen	since 01/07/2017
Supervisory Board	
Dr. Gerald Hommel Chairman	since 27/06/2014
Uwe Lamann Deputy Chairman	from 27/06/2014 till 23/07/2020
Dr. Barbara Ooms-Gnauck Deputy Chairman	since 27/06/2014
Winfried Klar	since 20/03/2013
Uwe Krämer	since 01/10/2015
Dr. Eberhard Kroth	since 20/03/2013
Managing Director of the subsidiaries in the UK, Korea and Japan	
Insook Yoo – va-Q-tec Ltd. (Korea)	since 07/07/2011
Insook Yoo – va-Q-tec G.K. (Japan)	since 05/04/2017
Sven Larsen – va-Q-tec Ltd. (UK)	since 01/01/2017
Roland Rapp – va-Q-tec Ltd. (UK)	since 01/03/2018

Shareholders with significant influence over va-Q-tec AG

Share pool of the families of Dr. Joachim Kuhn and Dr. Roland Caps

Interest in the share capital: 25.02%

Total compensation of key management members of the va-Q-tec Group

kEUR	2020	2019
short-term benefits	1,574	1,370
Post-employment benefits	25	24
Total remuneration of key management personnel of the va-Q-tec Group	1,599	1,394

Management Board compensation

kEUR	2020	2019
short-term benefits	720	644
Post-employment benefits	16	15
Total remuneration of the management board	736	659

Compensation totalling kEUR 736 was paid to the Management Board in 2020 (previous year: kEUR 659). This compensation consisted of basic compensation of kEUR 470 (previous year: kEUR 416), performance-based one-year compensation of kEUR 41 (previous year: kEUR 47), multi-year variable compensation of kEUR 209 (previous year: kEUR 181) and contributions to the company's pension scheme. Defined contribution pension commitments have existed for the Management Board members since 2014. To this end, kEUR 16 (previous year: kEUR 15) was paid into an external reinsured pension fund in the year under review.

As in the previous year, no advances or loans were extended to Management Board members in the year under review.

As of 31 December 2020, one member of the Management Board had a personal guarantee outstanding to the Thüringer Aufbaubank in an amount of kEUR 200 (previous year: kEUR 200). This guarantee was issued in 2011 without consideration being granted in return by va-Q-tec AG.

va-Q-tec does not disclose the total compensation of the individual Management Board members specifying their names, as Section 314 (3) Clause 1, 286 (5) of the German Commercial Code (HGB) makes this expressly subject to a differing AGM resolution with a qualified majority of the share capital represented at the resolution. The AGM of va-Q-tec AG on 31 May 2016 passed a corresponding resolution with the requisite majority.

Supervisory Board compensation

Total remuneration of the supervisory board 2020

kEUR	Remuneration	Expenses	consulting
Dr. Gerald Hommel	41	2	-
Winfried Klar	32	5	25
Uwe Andreas Krämer	18	-	-
Dr. Eberhard Kroth	23	1	19
Uwe Lamann	13	1	-
Dr. Barbara Ooms-Gnauck	23	2	-
Total	150	11	44

Total remuneration of the supervisory board 2019

kEUR	Remuneration	Expenses	consulting
Dr. Gerald Hommel	36	2	-
Winfried Klar	29	5	15
Uwe Andreas Krämer	15	-	-
Dr. Eberhard Kroth	17	1	25
Uwe Lamann	26	3	-
Dr. Barbara Ooms-Gnauck	19	2	-
Total	142	13	40

Compensation of kEUR 161 was granted to the Supervisory Board members for the 2020 financial year (previous year: kEUR previous 155). In both the previous year and in the year under review, compensation included only a short-term component, and consists of compensation for normal Supervisory Board activity and expenses. In addition, consultancy services in an amount of kEUR 44 (previous year: kEUR 40) were compensated, commissioned and rendered especially as part of the Power20+ program and in connection with the financing of va-Q-tec AG.

As of 31 December 2020, this Supervisory Board compensation generates kEUR 108 of payment obligations for the company (as of 31 December 2019; kEUR 36).

As in the previous year, no advances or loans were extended to Supervisory Board members in the year under review.

Interests held by the Management and Supervisory boards

As of the end of the 2020 financial year, the members of the Management Board, founders and members of the Supervisory Board held the following direct interests in the share capital of va-Q-tec AG:

Shareholder	Number of shares
CEO and founding families	3,496,044
CFO and Supervisory Board	58,281

Other transactions with related parties

No transactions were realized with related parties in the 2020 financial year.

5.5 EVENTS AFTER THE REPORTING DATE

No reportable events of material significance to the Group's financial position and performance occurred after 31 December 2020.

5.6 AUDITOR FEES

The fees for the services of the auditor Rödl & Partner GmbH Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft, Nuremberg, of kEUR 218 (previous year: kEUR 168) comprise the following

kEUR	2020	2019
Financial statements audit (thereof previous years: 2 kEUR)	148	123
Other certification services	39	-
Tax advisory services (thereof previous years: 15 kEUR)	19	16
Other services	12	29
Group, total	218	168

5.7 STATEMENT OF CONFORMITY TO THE GERMAN CORPORATE GOVERNANCE CODE

The Management and Supervisory boards of va-Q-tec AG issued the declaration of conformity with the German Corporate Governance Code pursuant to Section 161 AktG. The declaration is permanently available on the website www.va-q-tec.com in the Investor Relations section under:

<https://ir.va-q-tec.com/websites/vaqtec/German/530/erklaerung-zur-unternehmensfuehrung.html>

Würzburg, 26 March 2021

va-Q-tec AG

The Management Board



Dr. Joachim Kuhn



Stefan Döhmen

RESPONSIBILITY STATEMENT

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Würzburg, 26 March 2021



Dr. Joachim Kuhn
(Management Board
Chairman, CEO)



Stefan Döhmen
(Management Board
Chairman, CFO)

The auditor's report reproduced below also includes a "Report on the audit of the electronic reproductions of the financial statements and management report prepared for disclosure purposes in accordance with Section 317 (3b) HGB" ("ESEF Report"). The subject matter underlying the ESEF Note (ESEF documents to be audited) is not attached. The audited ESEF documents can be viewed or downloaded from the Federal Gazette following publication.

INDEPENDENT AUDITOR'S REPORT

To va-Q-tec AG, Würzburg

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND GROUP MANAGEMENT REPORT

Audit opinions

We have audited the consolidated financial statements of va-Q-tec AG and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2020 budget including the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the financial year from 1 January to 31 December 2020, as well as the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the Group management report of va-Q-tec AG, Würzburg, for the financial year from 1 January to 31 December 2020. In accordance with German legal requirements, we have not audited the content of the section "Corporate governance statement" in the Group management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) of the German Commercial Code (HGB) and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2020, and of its financial performance for the financial year from 1 January to 31 December 2020, and
- the accompanying Group management report as a whole provides an appropriate view of the Group's position. In all material aspects, this Group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks entailed in future development. Our audit opinion on the Group management report does not cover to the contents of the aforementioned parts of the group management report not included within the scope of our audit.

Pursuant to Section 322 (3) Clause 1 HGB, we declare that our audit has not led to any reservations concerning the legal compliance of the consolidated financial statements and the Group management report.

Basis for the audit opinions

We conducted our audit of the consolidated financial statements and of the Group management report in accordance with Section 317 HGB and the EU Audit Regulation (No. 537/2014, referred to hereinafter as the "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits as promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the Group management report" section of our auditor's report. We are independent of the Group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the Group management report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January to 31 December 2020. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon we do not provide a separate audit opinion on these matters.

In our view, the matter presented below was the most significant as part of our audit.

Periodic revenue recognition from contracts with customers

- Reasons for designation as a particularly important audit subject

In the financial year under review, the va-Q-tec Group realized revenues of kEUR 72,106 (previous year: kEUR 64,667). This corresponds to a 12% increase in revenues at Group level, to which the Systems segment (sale of thermal transportation containers) made a disproportionately high contribution with a 30% increase in revenue to kEUR 19,520. The revenues of the va-Q-tec Group are heterogeneous and comprise the sale of thermal transport containers (systems), vacuum insulation panels and thermal energy storage components (products) as well as the short-term rental from a large number of network stations distributed worldwide of transport containers preset to order-specific temperatures (services). This is complemented by consulting and other services, which also form part of the sales and rental business. Given the heterogeneity and complexity of the business transactions, appropriately designed processes and controls that are implemented within them are necessary for the recognition of revenue on an accrual basis, and require special consideration in the audit.

In our view, the recognition of revenue on an accrual basis was of particular importance in the context of our audit.

- Our approach in the audit

We have analyzed the processes implemented for the sales and rental business throughout the Group. In doing so, we identified Group-wide control mechanisms for the accrual-based recognition of revenue in the sales process, assessed their appropriateness and performed functional tests. Moreover, we examined the accounting treatment of selected contracts with new customers and contract adjustments with existing customers for IFRS conformity. In addition to analytical audit procedures, we examined a selection of sales revenue transactions both during the year and shortly before and after the balance sheet date to determine whether they had been properly recognized. In order to evidence the existence of trade receivables and thereby the recognition of sales revenues, we obtained balance confirmations for a selection of customers, or assessed corresponding incoming payments or further documents. The determination of our selection was risk-oriented and based on qualitative and quantitative characteristics. Furthermore, we verified compliance with the reporting requirements of IFRS 15 in the notes to the consolidated financial statements.

- Reference to related information

For details, please refer to the section "Summary of significant accounting policies" in the notes to the consolidated financial statements. Information on sales revenues and receivables is provided in the sections "Revenues" and "Trade receivables" in the notes to the consolidated financial statements.

Other information

The Management and Supervisory boards are responsible for the other information. The other information comprises:

- the statement on corporate governance in accordance with Section 289f HGB in conjunction with Section 315d HGB, to which reference is made in the "Corporate governance statement" section in the Group management report,
- the Supervisory Board's report,
- the confirmation pursuant to Section 297 (2) Clause 4 HGB regarding the consolidated financial statements and the confirmation pursuant to Section 315 (1) Clause 5 HGB regarding the Group management report,
- the remaining parts of the annual report, with the exception of the audited consolidated financial statements and Group management report, which has been audited in relation to its contents, and our auditor's report.

The Supervisory Board is responsible for the report of the Supervisory Board. The legal representatives and the Supervisory Board are responsible for the statement pursuant to Section 161 of the German Stock Corporation Act (AktG) on the German Corporate Governance Code (DCGK), to which reference is made in the Group management report as part of the corporate governance statement. In all other respects, the legal representatives are responsible for the other information.

Our audit opinions on the consolidated financial statements and on the Group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the aforementioned other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with disclosures in the Group management report whose content has been audited, or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that a material misstatement of this other information exists, we are required to report such a fact. We have nothing to report in this context.

Management and Supervisory boards' responsibility for the consolidated financial statements and Group management report

The Management Board members are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and for ensuring that the consolidated financial statements, in compliance with such requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, the Management Board members are responsible for such internal controls as they have deemed necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Management Board members are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to the Company as a going concern. In addition, they are responsible for preparing the accounts on a going concern basis unless an intention exists to liquidate the Group, or to cease operations, or no realistic alternative exists.

Furthermore, the Management Board members are responsible for the preparation of the Group management report which, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the Management Board members are responsible for such arrangements and measures (systems) they have deemed necessary to enable the preparation of a Group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the Group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the Group management report.

Auditor's responsibility for the audit of the consolidated financial statements and Group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the Group management report as a whole provides an appropriate view of the Group's position and is consistent in all material respects with the consolidated financial statements and the knowledge obtained in the audit, complies with German legal requirements, and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the Group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this Group management report.

We exercise professional judgement and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement in the consolidated financial statements and the Group management report, whether due to fraud or error, we design and perform audit procedures responsive to those risks, and we obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal the internal control system relevant to the audit of the consolidated financial statements, and of arrangements and measures (systems) relevant to the audit of the Group management report, in order to design audit procedures that are appropriate in the circumstances, albeit not for the purpose of expressing an audit opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies applied by the Management Board members and the reasonableness of estimates made by the Management Board members as well as related disclosures.
- Conclude on the appropriateness of the Management Board members' application of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists relating to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the Group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in such a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group in order to be able to express audit opinions on the consolidated financial statements and on the Group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the Group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the Management Board members in the Group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions applied by the Management Board members as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. A substantial unavoidable risk exists that future events will differ materially from the prospective information

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and therefore comprise the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Report on the audit of the electronic reproductions of the consolidated financial statements and the Group management report prepared for the purpose of disclosure in accordance with Section 317 (3b) HGB

Audit opinion

In accordance with Section 317 (3b) HGB, we have performed a reasonable assurance engagement to determine whether the reproductions of the consolidated financial statements and the Group management report (hereinafter also referred to as "ESEF documents") contained in the attached file „va-Q-tec_AG_KA+KLB_ESEF_2020-12-31.zip“ (SHA256-Hashwert:91b381697cfee92b0c907315486112471601932c58464f29c39c6894a32d7662) and prepared for disclosure purposes comply in all material respects with the electronic reporting format ("ESEF format") requirements of Section 328 (1) HGB. In accordance with German legal requirements, this audit extends only to the conversion of the information contained in the consolidated financial statements and the Group management report into the ESEF format, and consequently neither to the information contained in these reproductions nor to any other information contained in the aforementioned file.

In our opinion, the reproductions of the consolidated financial statements and the Group management report contained in the aforementioned attached file and prepared for the purpose of disclosure comply in all material respects with the requirements of Section 328 (1) HGB regarding the electronic reporting format. Other than this opinion and our opinions on the accompanying consolidated financial statements and on the accompanying Group management report for the financial year from 1 January to 31 December 2020, included in the "Report on the audit of the consolidated financial statements and Group management report" above, we do not express any opinion on the information included in these reproductions or on any other information included in the aforementioned file.

Basis for the audit opinion

We conducted our audit of the reproductions of the consolidated financial statements and the Group management report contained in the aforementioned attached file in accordance with Section 317 (3b) HGB, taking into account the draft Auditing Standard of the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW): Audit of electronic reproductions of financial statements and management reports prepared for disclosure purposes in accordance with Section 317 (3b) HGB (IDW EPS 410). Our corresponding responsibility is further described in the section "Auditor's responsibility for the audit of the ESEF documents". Our auditing practice meets the requirements of the quality assurance system of the IDW quality assurance standard: Requirements for quality assurance in auditing practice (IDW QS 1) were applied.

Management and Supervisory boards' responsibility for the ESEF documents

The legal representatives are responsible for the preparation of the ESEF documents with the electronic reproductions of the consolidated financial statements and the Group management report in accordance with Section 328 (1) Clause 4 No. 1 HGB, and for the markup of the consolidated financial statements in accordance with Section 328 (1) Clause 4 No. 2 HGB.

Furthermore, the legal representatives are responsible for such internal control as they deem necessary in order to enable the preparation of ESEF documents that are free from material non-compliance, whether due to fraud or error, with the electronic reporting format requirements of Section 328 (1) HGB.

The legal representatives are also responsible for submitting to the operator of the German Federal Gazette (Bundesanzeiger) the ESEF documents together with the auditor's report and the attached audited consolidated financial statements and audited Group management report, as well as other documents to be published.

The Supervisory Board is responsible for overseeing the preparation of the ESEF documents as part of the financial reporting process.

Auditor's responsibility for the audit of the ESEF documents

Our objective is to obtain reasonable assurance concerning whether the ESEF documents are free from material non-compliance, whether due to fraud or error, with the requirements of Section 328 (1) HGB. We exercise professional judgement and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material violations of the requirements of Section 328 (1) HGB, whether due to fraud or error, we design and perform audit procedures responsive to those risks, and we obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion.
- Obtain an understanding of internal control relevant to the audit of the ESEF documents in order to design audit procedures that are appropriate in the circumstances, albeit not for the purpose of expressing an opinion on the effectiveness of those controls.
- Assess the technical validity of the ESEF documentation, i.e. whether the file containing the ESEF documentation complies with the requirements of Delegated Regulation (EU) 2019/815, as amended at the reporting date, on the technical specification for that file.
- Assess whether the ESEF documentation provides a consistent XHTML representation of the audited consolidated financial statements and the audited Group management report.
- Assess whether the markup of ESEF documents with inline XBRL technology (iXBRL) provides an adequate and complete machine-readable XBRL copy of the XHTML rendering.

Further information pursuant to Article 10 of the EU Audit Regulation

We were elected as Group auditor by the Annual General Meeting on 14 August 2020. We were engaged by the Supervisory Board on 15 December 2020. We have been the auditor of the separate annual financial statements of va-Q-tec AG, Würzburg, since the 2011 financial year and of its consolidated financial statements since the 2014 financial year.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor Responsible For The Engagement

The German Public Auditor responsible for the engagement is Thomas Rattler.

Nuremberg, 26 March 2021

Rödl & Partner GmbH
Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft

Fehlauer
(German Public Auditor)

Rattler
(German Public Auditor)

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FINANCIAL CALENDAR

11/05/2021	Publication quarterly financial report (call-date Q1)
21/05/2021	Annual General Meeting
12/08/2021	Publication half-yearly financial report
11/11/2021	Publication quarterly financial report (call-date Q3)

