RoodMicrotec

RoodMicrotec N.V.

Zutphenseweg 29 D1, 7418 AH Deventer, The Netherlands
Telephone: +31 (0)570 745623

Email: investor-relations@roodmicrotec.com
Chamber of Commerce number 33251008

www.roodmicrotec.com

ANNUAL REPORT 2019

CONTENT

ROODMICROTEC OVERVIEW

MESSAGE FROM THE CEO

I have now been the CEO of RoodMicrotec for four years and it is a great honor to be allowed to lead such an excellent organization. We set out for a new path a couple of years ago and we continue to see the fruits of this transformation. Our customers are excited about the offerings we are able to provide them and the internal organization is working hard to fulfil not only the demands of our customers but also the further development of the company in all areas.

In June 2019 our COO and Managing Director Reinhard Pusch retired, but we are very pleased that we could maintain him as a valuable advisor until end of 2020. I welcome Arvid Ladega as Managing Director of the Dutch entity on top of his responsibility as CFO of the company. I also welcome Jan de Koning Gans and Klaus Dittmann as Managing Directors of the German entity. Jan continues to head our sales and marketing department and in this role he is taking the responsibility to generate new leads and book new orders throughout the world. Klaus is running the Supply Chain Management department which is a key area for the future of the company.

During 2019 we celebrated our 50-year anniversary with guests from the local area around Nördlingen. The mayor of the city was present and reinforced the importance of having companies like RoodMicrotec in the area. It is an achievement to celebrate 50 years of company existence in this industry and we are looking forward to many more successful years.

The stable sales numbers for 2019 over 2018 was due to the overall market situation which also impacted our total income. We however managed to be more successful than the market and this shows that the diversity that we have in our product portfolio is a big advantage. The year started at the same level as 2018 ended which for us was a very promising start of the year. We planned to increase the total income throughout the year and this was looking positive until the end of the summer. Then the market situation changed and we saw a more conscious view from our customers. We however managed to keep a stable level throughout the year even though the market showed a reduction in the second half.

We have continued to invest for the future also during 2019. In the first half of the year we bought an Automatic Optical Inspection system for wafers that will enable us to deliver even higher quality services to our customers. We have also purchased a new test system from National Instruments which enables us to offer quick test solutions where the volumes are not high enough for a full-blown ATE. We upgraded our IFLEX test system with additional capabilities to support future automotive requirements and added a brand-new storage cabinet to be able to store customer goods under well controlled conditions until they are delivered. This is in line with our goal to increase the quality of our services every year.

Due to the global outbreak of the coronavirus (COVID-19) in the beginning of 2020 and the uncertain situation since then, it is important for us to protect our partners - employees as well as customers and suppliers. We are closely monitoring the situation and are taking steps to keep our partners safe and help to prevent the spread of the virus. We are also taking extensive measures to be able to maintain a permanent outstanding level of service as well as unimpaired business relationships with our customers and suppliers. RoodMicrotec's facilities are carrying out normal operations to further support our customers.

- we ask our employees, especially those who interact with customers, to undertake the appropriate hygiene measures to prevent the spreading of the virus;
- cleaning and disinfection of our facilities have been intensified;
- while continuing to support our customers, we have restricted international and domestic travelling;
- to reduce a possible work-related exposure and thus health risks, we have implemented strict internal guidelines for our employees;
- we closely monitor our supply chain to be able to further guarantee an adequate quality in the event of any disruption.

These extensive measures have been implemented to be able to maintain a permanent outstanding level of service as well as unimpaired business relationships with our customers and suppliers.

Martin Sallenhag, CEO

Deventer, 10th June 2020

PROFILE ROODMICROTEC

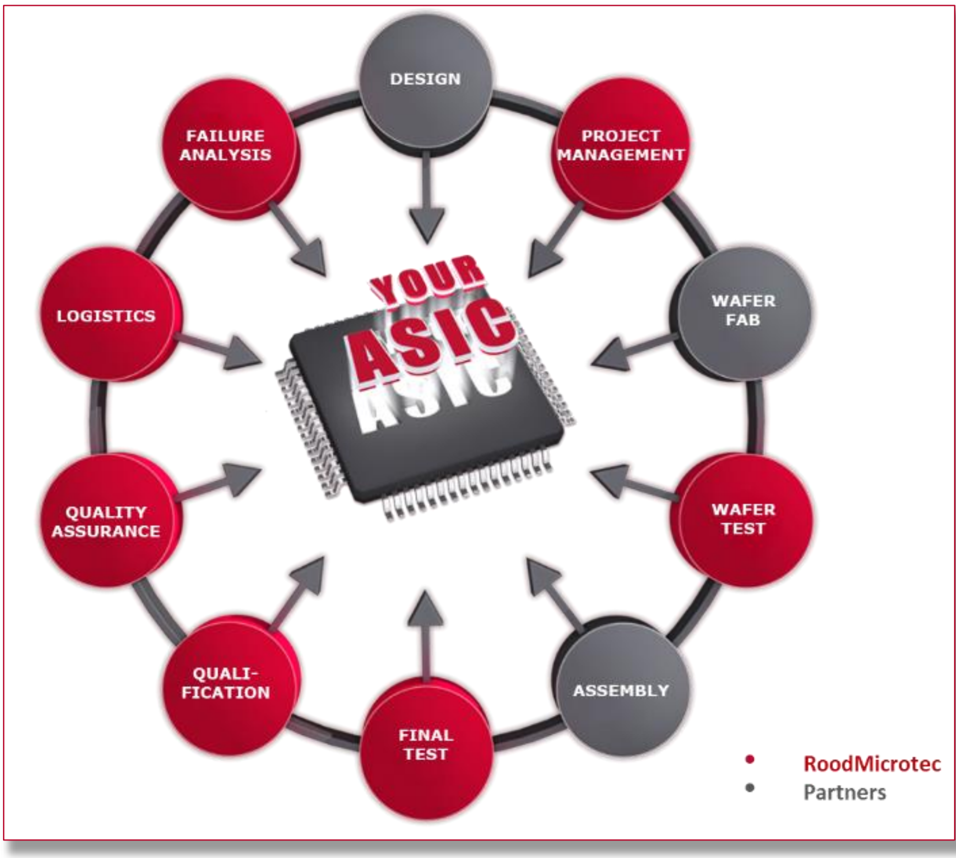
RoodMicrotec is the leading independent company for semiconductor supply and quality services. With 50 years' experience in the semiconductor and electronics industry, RoodMicrotec is well-established as a highly valued partner to many companies worldwide. We provide full-turnkey ASIC services for complex microchips that are fully customized to handle specific applications for individual customers. In co-operation with selected partners, we manage the complete development and production flow of the ASICs in the target volume, ranging from low quantities up to multiple millions per year. Our turnkey solution includes design, project management, wafer fab, wafer test, assembly, final test, qualification, logistics and failure analysis. Our flexible business model allows customers, based on their special needs, to choose each service individually. All our services comply with the industrial and quality requirements of the high reliability, space, automotive, healthcare and industrial sectors.

How does it all fit together?

RoodMicrotec offers supply chain services, wafer & component testing, qualification & reliability investigations and failure analysis for companies that need application-specific integrated circuits (ASICs). All services are offered in a one-stop-shop package, whereby RoodMicrotec organizes and orchestrates all steps covering the full value chain of these chips or components; from the design of a semiconductor all the way to the delivery of the end-product (serial parts).

An ASIC is an integrated circuit that is built for a specific application or purpose that can be found in almost any electronic device. Compared to an off-the-shelf standard chip, an ASIC can improve speed because it is specifically designed to do one thing only and to do this well. It can also be made smaller with the benefit of using less electrical power. The disadvantage of this circuit is that it can be more expensive to design and manufacture, particularly if only a few units are needed. Business intellectual property (IP) is an important asset and this is why a number of clients prefer to deal with partners that are based in Europe where IP is better protected, even though most of the semiconductor business is concentrated in Asia.

ASICs are mostly designed based on an idea of a customer; mostly an OEM or a fabless company. Once the design has been finalized, the product leaves the drawing board and can be turned into a physical product. The steps required, can best be illustrated by means of the following picture, which also provides a better insight into RoodMicrotec's activities.



The first step in turning the idea into a physical product is the production of wafers, which is normally done by specialized companies based in the Far East. The wafers are then sent back to Europe and will be submitted to a series of tests. The development of the test program, which is product specific as well, is done by RoodMicrotec using in-house engineers. The test is performed in Nördlingen, where RoodMicrotec has the capability to test wafer sizes from 6 to 12 inches.

Once the wafer tests have shown satisfactory results, the next step consists of the chip assembly. This is also mostly outsourced to manufacturers in Asia. When a batch is ready, it is submitted to additional tests. In the case of RoodMicrotec this also happens in Nördlingen.

Once all these tests have been completed and produce the required outcome, the next step is qualification. This is the measurement of the performance of components under extreme conditions, like e.g. temperature tests, from cold to heat testing, in dry and damp atmospheres and adjustable temperature change rates. As part of this program, the ASIC is among others exposed to rapidly changing temperatures, varying from minus 40°C to plus 125°C for a time frame that can last 1,000 hours or even longer. Within RoodMicrotec, this happens both in Nördlingen and in Stuttgart.

The tests performed on ASICs in a production environment separate the good from the bad components. After that, the well-functioning ASICs are packed, stored and sent to the clients at the right time (logistics and just-in-time-delivery). RoodMicrotec also keeps track of the failure rates and for which tests the ASICs failed.

Even when the ASIC passed the final tests, the chip or the finished product in which the ASIC is built into can fail. In some cases (e.g. a high fail rate or products in the HiRel segment (e.g. safety-related)) this can trigger the manufacturer of the product to investigate its cause and how it can be solved. This calls for failure analysis, which within RoodMicrotec happens at its Stuttgart unit.

A SCM contract is concluded for a specific period and for a certain estimated volume. During the life of the contract RoodMicrotec manages all the steps in the value chain from the development phase (design and prototyping) to the industrialization phase (prototype testing and qualification), all the way to production and logistics. In the first two phases, the amounts RoodMicrotec can invoice are relatively modest. Once the volume production starts, the sales are expected to rise over time and generate significant recurring sales after reaching the volume production phase. The main advantage of this approach is that the clients have one single company they are dealing with instead of a wide range of specialized companies. Apart from that, it helps to unburden the client.

In addition to these SCM contracts, the company for sure will continue to secure contracts for the individual services it offers, because this can open the doors to new clients and/or to SCM contracts as well. Experience shows that client wins often happen through failure analyses as a first entry point. Besides, the industry as a whole needs a flexible layer to absorb shocks in the demand for testing and qualification. This can also help to bring new clients and/or partnerships.

The quality of services and handling speed have always been very important within this sector. For that reason, RoodMicrotec will continue to strengthen its internal quality system through maintaining the certification according the 2015 version ISO 9001, VDA 6.2 and ISO/IEC 17025, in addition with focus on risk assessment, which is especially important for automotive customers. Part of this, also consists of further investments in new hi-tech equipment.

Where does it all fit together?

RoodMicrotec is focusing on the market segments automotive, industrial and healthcare which are still the key drivers for the global semiconductor market and therefore they have the highest growth rates. Working in the HiRel / Aerospace segment is encouraging, and we still consider this area of importance to our business and foresee a future increase. The components with most high quality and reliability are being deployed.

Automotive

Electronic components for vehicle applications are still one of the drivers for the global semiconductor industry. Devices in the automotive industry are a combination of high complexity, high quality demands and high volumes. Applications range from car infotainment and communication with the outside world up to self-driving cars.

New opportunities are seen by a specific trend that the industrial sector and the HiRel industry will upgrade / adapt their requirements to automotive standards.

Industrial (Industry 4.0, IoT)

In the industry sector the main focus is on Industry 4.0 / Internet of Things. The rapid change and complete novel production possibilities make projects highly sophisticated.

Industry 4.0 / Internet of Things means extensive networking, using innovative IT systems which enable entirely new production methods, smart grids and smart metering. For example, starting an oven remotely, opening and shutting down windows when the temperature changes, etc.

Healthcare

In the fields of healthcare electronic / biological chips the devices are subjected to special requirements and complexity. No matter if they are used afterwards within or outside the body, or whether they have physical connections between internal and external devices – they have to be reliable and long-lasting.

Healthcare projects are defined by long lead times due to complex test environments, which contain a number of biological elements such as temperature, humidity, acidity and heart rate.

HiRel / Aerospace

For the HiRel / Aerospace sector we serve space exploration, solar sensors for satellites, radio applications in (military) aviation, etc. The most possible quality and reliable components are needed – quite similar to the automotive sector. Also, more and more so-called components-off-the-shelf (COTS) are used. These are commercial and therefore less expensive products.

Long lead times and low volumes, but very high commercial value characterize these projects.

ROODMICROTEC PERFORMANCE INDICATORS

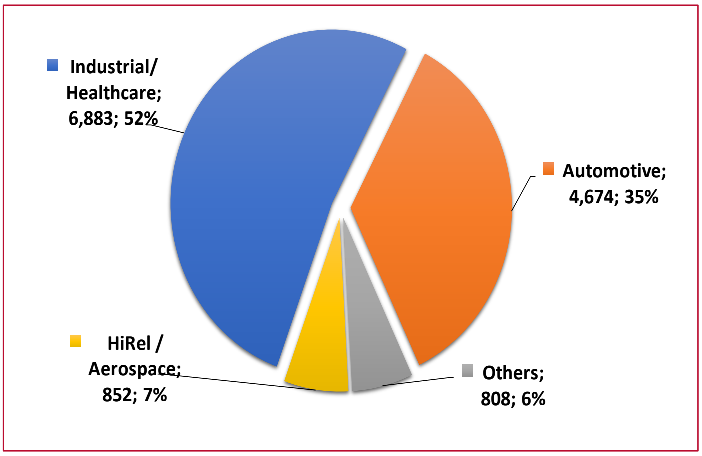
Total income 13,217
(x 1,000 €)
-1.5% Compared to 2018

EBITDA 1,539
(x 1,000 €)
+11% Compared to 2018

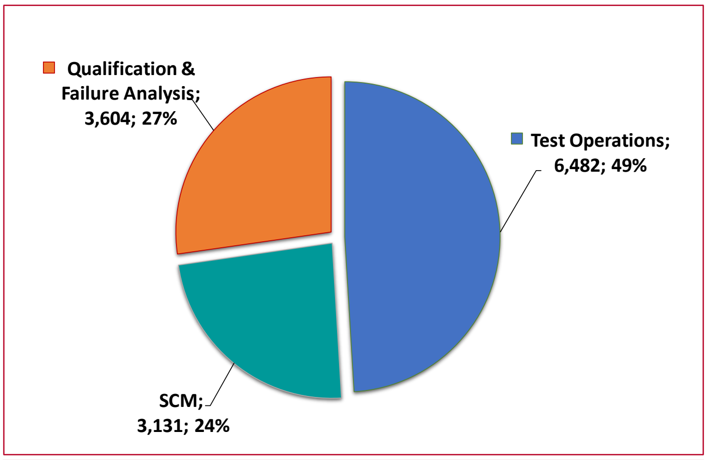
Net debt 1,472
(x 1,000 €)
+61% Compared to 2018

Balance sheet Total 14,294 (x 1,000 €)
+5.1% Compared to 2018

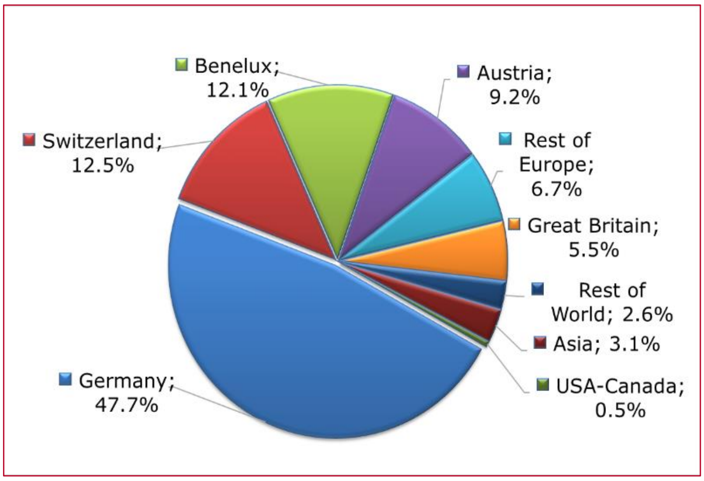
Net result -73
(x 1,000 €)
-198 Compared to 2018



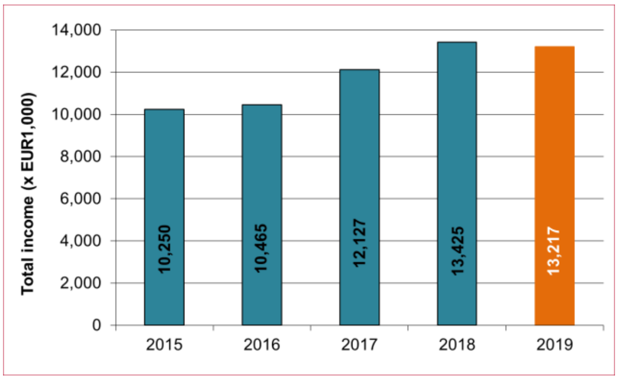
Distribution of total income 2019 by market (EUR x1,000)



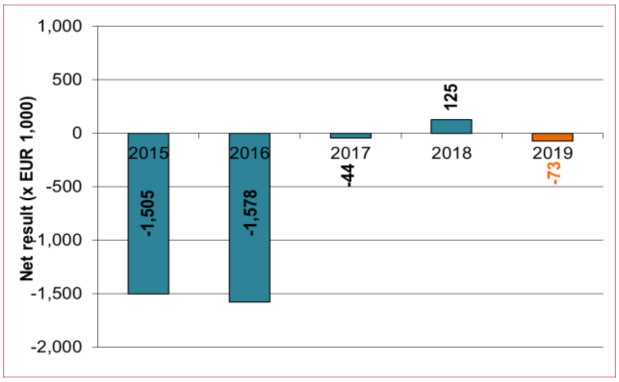
Distribution of total income 2019 by Operational Units (EUR x1,000)



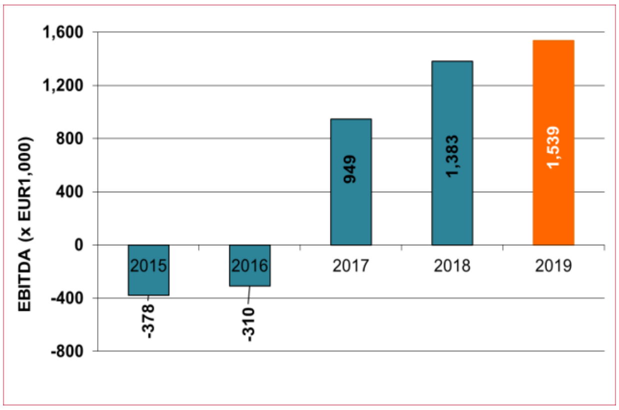
Geographical distribution of total income 2019 (% of total income)



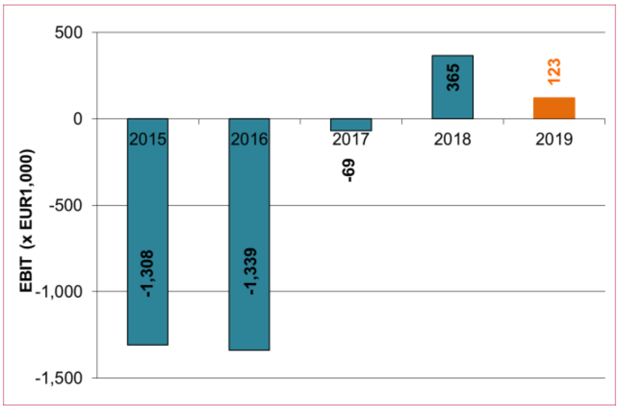
Total income



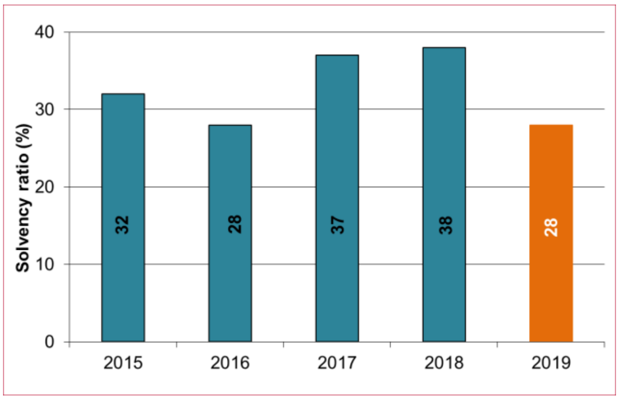
Net result



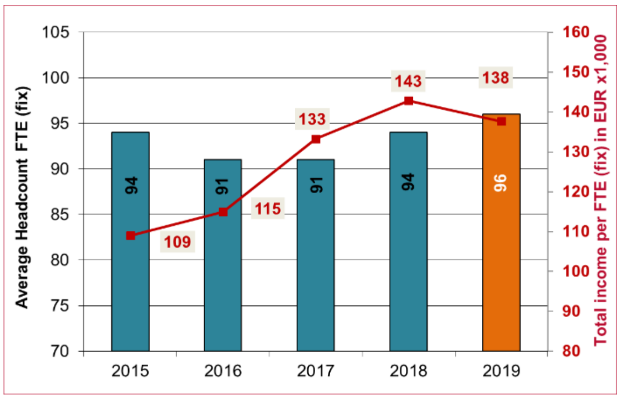
EBITDA



EBIT



Solvency



Total income per employee and head count

In 2019 RoodMicrotec only had financial performance indicators.

KEY FIGURES + FIVE-YEAR SUMMARY

31 December 2019
(x EUR 1,000)

	2019	2018	2017	2016	2015
Results					
Total income	13,217	13,425	12,127	10,465	10,250
EBITDA[2]	1,539	1,383	949	-310	-378
EBIT (operating result)[1]	123	365	-69	-1.339	-1,308
EBT[1]	-87	124	-327	-1,587	-1,495
Cash flow from operating activities	1,156	563	628	-452	-832
Net result	-73	125	-44	-1,578	-1,505
Capital, Debt & Liquidity Ratios					
Total assets[1]	14,294	13,606	13,051[1]	14,711	13,531
Group equity[1]	3,945	5,209	4,767	4,053	4,321
Net debt[1]	1,472	915	2,451	2,428	1,675
Capital (net debt + equity)[1]	5,416	6,124	7,218	6,481	5,996
Gearing ratio (net debt/ capital)	27%	15%	34%	37%	28%
Solvency (group equity / total liabilities)[1]	28%	38%	37[1]%	28%	32%
Debt ratio (net debt / EBITDA)[1]	1.0	0.7	2,6	-7,83	-4.43
Net working capital	1,505	1,933	452	540	560
Working capital ratio[1]	0.72	1.78	1.17	0.97	1.27
Assets					
Tangible and intangible fixed assets	9,404	7,682	8,451	7,684	6,908
Investments in (in)tangible fixed assets	1,895	576	1,199	1,879	726
Depreciation of (in)tangible fixed assets	1,416	1,018	1,018	1,029	930
Data per share (x EUR 1.-)					
Group equity[1]	0.053	0.072	0.071	0.060	0.080
Operating results[1]	0.002	0.005	0.000	0.000	-0.020
Cash flow	-0.010	0.015	-0.001	-0.010	-0.020
Net result[1]	-0.001	0.002	-0.001	-0.020	-0.030
Share price: year end	0.247	0.250	0.310	0.200	0.270
Share price: highest	0.284	0.390	0.380	0.280	0.300
Share price: lowest	0.202	0.234	0.190	0.190	0.210
Issue of nominal shares					
At year end (x 1,000)	74,896	72,779	66,716	63,411	54,411
Number of FTE's (permanent)					
At year end	98	93	91	94	92
Average	96	94	91	91	94
Total income / Average FTE's (permanent)	138	143	133	115	109

[1]Inclusive impact of adoption of IFRS 16 Leases from 2019

SHARES / SHAREHOLDER INFORMATION

Listing

RoodMicrotec N.V. is a public limited liability company with its registered office in Deventer, the Netherlands and has a listing on the Euronext Amsterdam Stock Exchange since 1986 for shares, registered under ISIN code: NL0000440477 (ticker symbol: ROOD.AS).

RoodMicrotec N.V. has secured bonds listed on NPEX The Hague since 2014, registered under ISIN code NL0010811030.

Major Holdings in Listed Companies Disclosure Act

As at 31st December 2019 RoodMicrotec has received the following reports, with positions equal to or greater than 3%, in the context of the disclosure requirements of the Major Holding and Capital Interests in Securities-Issuing Institutions pursuant to the Dutch Financial Supervision Act (Wft):

	Percentage	Date reported
Blikkenburg B.V.	12.35%	01st February 2018
P.C. van Leeuwen	5.53%	12th April 2018
Sitimo Ltd.	5.26%	02nd August 2018
J.H. Langendoen	3.17%	30st December 2019

Changes in the number of shares (x 1,000)

As at 31st December 2019, 74,896,267 ordinary shares are issued (2018: 72,778,732). The company holds 4,100 ordinary shares (2018: 4,100) as treasury shares.

Regulation to prevent insider trading

We comply with the disclosure and notification requirements in the rules on preventing market abuse and on operating in markets in financial instruments in accordance with article 5.4 of the Dutch Financial Supervision Act (Wft) and the Decree on Market Abuse ('Besluit marktmisbruik Wft'). A broad circle of employees and consultants have signed a declaration binding them to abide by these insider rules. The members of the Board of Management and the Supervisory Board also comply with the disclosure requirements of Major Holdings and Capital Interests in Securities-Issuing Institutions pursuant to the Wft. The Netherlands Authority for the Financial Markets (AFM) monitors compliance with these statutory provisions.

Dividend

So far, we have not distributed any dividend since our financial position excluded it. The management prefers to use the company's own resources to grow, to further improve its financial health and strives to raise the market value of the share through such growth. In the next few years, we will seek a balance between the intended debt reduction, essential investment and a fair return for shareholders. The Board of Management proposes not to distribute any dividend for the 2019 financial year.

Investor relations

We are well aware of the importance of active, transparent and open communication with our stakeholders. For this reason, since 2006 we have pursued an active investor relations policy through meetings and conference calls with the financial press, analysts and investors.

This year and also in future, we focus on intensifying the communication with our shareholders and bondholders. In this context, we are organizing meetings for our shareholders and bondholders when expedient.

As in the past years, if circumstances allow, we will again raise our industry-expert profile in 2020 by organizing seminars highlighting our core activities and the corresponding services to Fabless Companies and OEMs. The objective is to communicate our specific knowledge and share it with our customers and partners. We will further intensify our focus on publicity for all areas.

Communication with the various target groups is also done through the company's corporate website, www.roodmicrotec.com, and our newsletter.

General meeting of shareholders 2019

The minutes of the Annual General Meeting of Shareholders, held on 23 May 2019, and of the Extraordinary Meeting of Shareholders, held on 26 November 2019, may be inspected on the company's corporate website.

Financial calendar

11th June 2020	Publication of agenda and invitation for the Annual General Meeting of Shareholders
11h June 2020	Conference call for financial press and analysts
23rd July 2020	Annual General Meeting of Shareholders
24th July 2020	Annual Bondholders Meeting
30th July 2020	Publication interim report 2020
30th July 2020	Conference call for financial press and analysts
15th October 2020	Trading update quarter 3-2020

REPORT OF THE BOARD OF MANAGEMENT

MEMBERS OF THE BOARD OF MANAGEMENT

Martin Sallenhag & Arvid Ladega

Martin Sallenhag, CEO & Director

- Joined RoodMicrotec in March 2015 as CTO
- Appointment to CEO and Managing Director in June 2016 for a four-year term
- Responsible for the overall management of the company
- Experience in the semiconductor business in various management positions within Samsung Electronics, Dialog Semiconductor and Ericsson for more than 25 years
- Holding a Master of Science degree in Electrical Engineering from Lund University with focus on Mixed Signal ASIC design

Arvid Ladega, CFO & Director

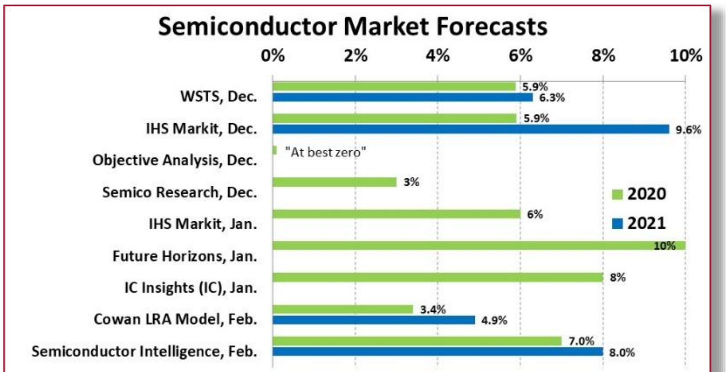
- Joined RoodMicrotec in November 2016 as CFO
- Appointment to CFO and Managing Director in May 2019 for a four-year term
- Responsible for the finance department with special focus on investor relationships with the main investors in Holland
- Extensive experience as CFO in the industrial sector, having served in that capacity for almost 12 years at Turn Key Pipeline Services B.V. and at Bartels Engineering, both in the Netherlands
- Holding a senior financial position at Wasco Coatings Europe, subsidiary to its Malaysian listed holder
- Holding a bachelor's degree in economics

MARKET DEVELOPMENT & TRENDS – CHALLENGING FUTURE

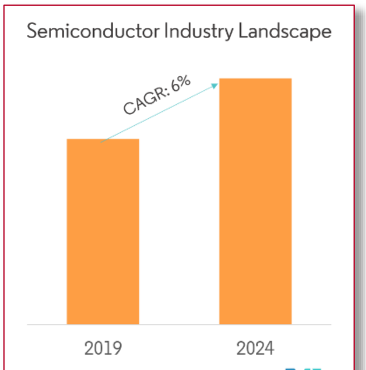
The market information RoodMicrotec uses is based on public sources like WSTS (World Semiconductor Trade Statistics, IC Insights, SIA (Semiconductor Industry Association), McKinsey, Mordor, Semiconductor Intelligence, published studies from Pricewaterhouse Coopers, KPMG, and others as well as from conferences and articles.

Overall semiconductor demand was down for the year as the global economy slowed from 3.6% growth in 2018 to 2.9% growth in 2019, according to the International Monetary Fund (IMF) – see (http://www.semiconductorintelligence.com/semiconductor-recovery-in-2020/). The slowdown for 2019, in some cases even negative growth rates, of the semiconductor market were published beginning of the year. At the end 2019 closed with a result of -12.1% worldwide. RoodMicrotec total income is nearly stable with -1.5% less than in the year before compared to -7.3% for Europe.

In the end of 2019, the signals were generally positive; prognoses from various institutes for 2020 expect a recovery of the semiconductor market and predict growth in the range of 3% to 8% - depending on the institute. Two outliers speak about "zero at the best" and another one expects 10% growth.



Source: (http://www.semiconductorintelligence.com/semiconductor-recovery-in-2020/)



Source: Mordor Intelligence

Technical and technological innovations are driving the growth in the semiconductor industry. As more and more cutting-edge devices emerge, such as electric cars and hybrids, healthcare applications, smart homes, smart phones and wearable devices, the number of semiconductor components is ever expanding in the applications and will further increase the demand for semiconductor products. These factors will drive solid growth for the global semiconductor market over the next years.

The following key findings in publicly available information of other research institutes support our strategic choice for our focused markets:

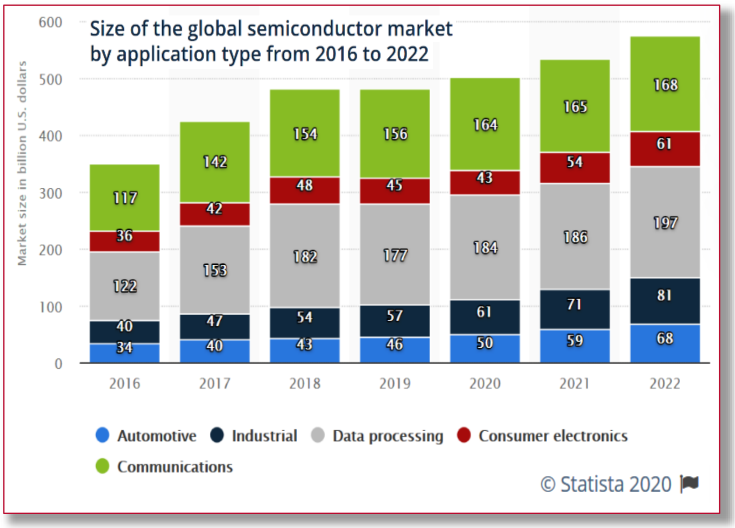
1. The automotive and industrial markets will both drive growth in demand for semiconductors.
2. The Internet of Things / Artificial Intelligence / 5G are the next growth engines for the semiconductor industry, particularly for the sensor, communications and industrial segments.
3. Power Electronics and GaN-technology are indispensable for the energy management systems, such as in electronic vehicles, solar energy networks, etc.

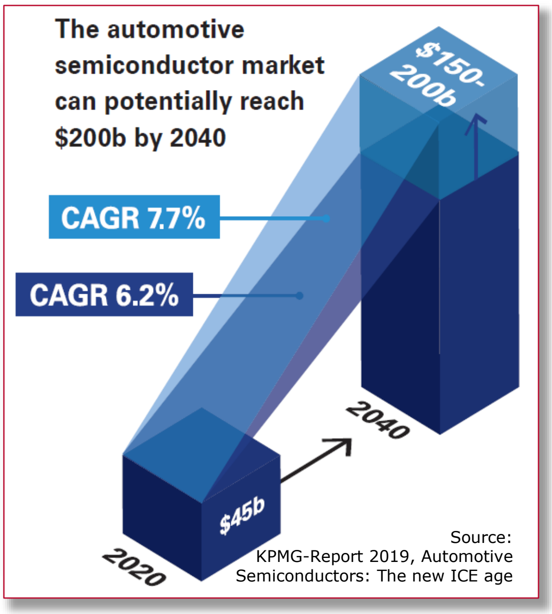
RoodMicrotec's management team is positive about the future development of the company. RoodMicrotec is focusing on and serving the emerging technology sectors as described above. All these sectors will definitely continue to grow in the future, led by the automotive and data processing markets (see PwC study dated April 3, 2019 "Opportunities for the global semiconductor market" in the following paragraph Automotive).

Automotive

RoodMicrotec is a recognized player in the automotive sector, which is one of the fastest growing markets also in the future and which offers us many exciting opportunities. The growth of this market will lead to additional demands for electronic equipment and create a positive impact on the semiconductor industry.

According to a report from Verified Market Research the global automotive semiconductor market was valued at USD 40.28 billion in 2018 and is projected to reach USD 59.87 billion by 2026 which means growing at a CAGR of4.96% from 2018 to 2025 (see https://www.packagingnews24.com/automotive-semiconductor-market-2020-analysis-by-overview-growth-top-companies-trends-demand-and-forecast-to-2026/).





Electric cars and hybrids are gaining ground, conventional cars are still selling well and are an important driver for the semiconductor industry; furthermore, the semiconductor content of cars is growing quickly, as they rely on greater intelligence, connectivity and sophisticated electronics (autonomous drive, vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communications). In addition, growing interest in electric vehicles focuses on on-board safety, convenience and environmental features. Advanced automotive electronics become more widely available on mid-range and entry-level cars. However, the nature of the automotive industry model is also shifting in new directions. Concepts of product ownership will give way to service propositions to deliver mobility to consumers who will pay only for what they use e.g. ride sharing or car sharing. Creating and managing the systems to deliver that mobility will depend heavily on complex electronics.

The average value of semiconductors in cars will be about 400 Euro in 2020 but will grow in the years following with the advancement of navigation, infotainment, and connectivity systems. It is expected that the value will grow further, to about 1,500 Euro, if level 4/5 automation, electrification, and 5G networking are further developed for autonomous driving cars.

Semiconductor companies focusing on the automotive industry as a key market will need to have a laser-sharp focus on quality from product design through to production and will require stringent program change control in order to profit from the growth opportunity the automotive sector offers (Source: PwC study dated April 3, 2019 "Opportunities for the global semiconductor market" in the following paragraph Automotive).

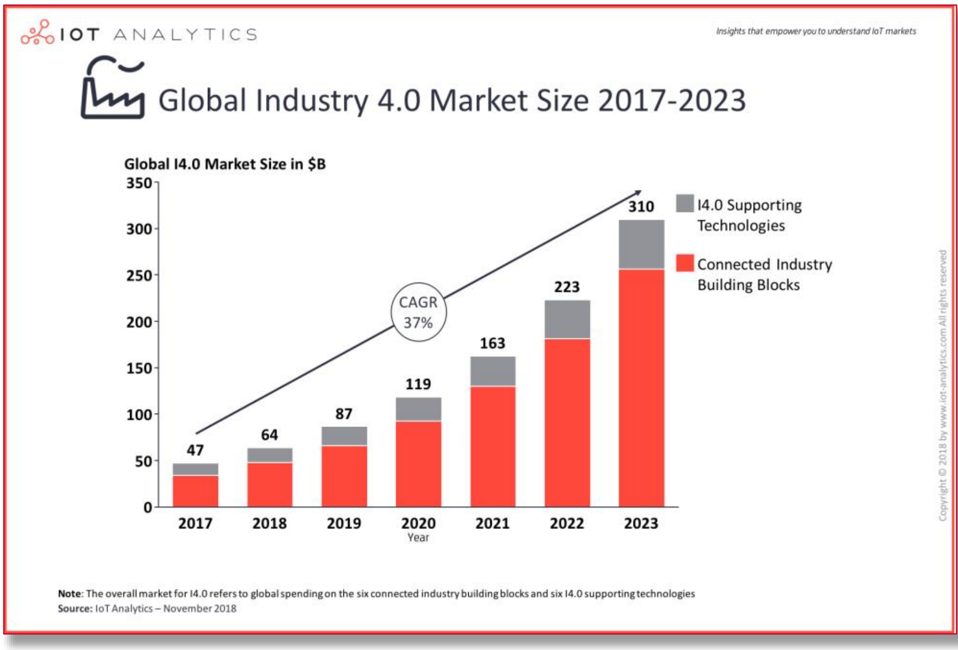
Industrial (Industry 4.0, IoT) / Healthcare

Artificial Intelligence, virtual reality, 5G, 3D imaging, smarter homes and IoT, among others, hold tremendous promises for further growth. The basic principle of Industry 4.0 / IoT is that by connecting machines, equipment and systems, businesses are creating intelligent networks along the entire value chain that can control each other autonomously.

Characteristic for industrial production in an Industry 4.0 environment are strong customization of products under the conditions of high flexible (mass) production. The required automation technology is improved by the introduction of methods of self-optimization, self-configuration, self-diagnosis, cognition and intelligent support of workers in their increasingly complex work. Some examples for Industry 4.0 are machines that can predict failures and trigger maintenance processes autonomously or self-organizing logistics that react to unexpected changes in production.

Industry 4.0 is migrating into most of the industrial applications. It is mainly based on different sensors detecting all kind of information as current, voltage, magnetic field, light, temperature, shock, humidity, etc. combined with an intelligent integrated circuit and a transmission function RFID, etc. There is an increasing demand on such Mixed Signal integrated circuits to reduce space, save energy or create faster performing systems.

IoT will be the next growth engine for the semiconductor industry. Based on T4 Platform and IoT Analytics - https://www.t4.ai/industry/industrial-iot-market-size-iiot - the current market sentiment and short-term outlook is extremely positive. The Industrial IoT Market Size was USD 87 billion in 2019 and is forecast to grow at an average of 37% until 2023. In 2023, the Industrial IoT Market Size is estimated to reach USD 310 billion.



In addition to Industry 4.0, IoT describes the complete world of different sensors within the electronics and is connected to detect and control temperature, humidity, light, electricity, etc. in all kind of different applications in the home (electricity, refrigerator, light, body, etc.), in cars (V2V-, V2I-, internal vehicle communication), in agriculture, in healthcare and elsewhere.

In all cases, the connected devices that transmit information across the relevant networks rely on innovations from semiconductor players — highly integrated microchip designs, for instance, and very low-power functions in certain applications. The semiconductor companies that can effectively deliver these and other innovations to OEMs and others that are building IoT-products and applications will play an important role in the development of the market.

Within the industrial applications healthcare devices will also see a growth in demand and applications. With the development of connected healthcare devices, health services are gradually shifting from a clinical setting to the home environment. From fitness trackers that monitor activity to flexible patches that can detect heart rate, body temperature and more, up to remote patient monitoring, these applications will fuel capital investment in healthcare and contribute to the growth in industrial applications of semiconductors.

The healthcare market has a highly promising future. Specifically, the monitoring of life functions inside or outside the body is an increasing market. According to a report published by Fortune Business Insights™ titled "IoT in Healthcare Market 2019-2026" the market was worth USD 30.96 billion in and is prognosticated to reach USD 176.82 billion by 2026, a CAGR of 24.5% during the forecast period 2019-2026.
(see https://www.fortunebusinessinsights.com/internet-of-things-iot-in-healthcare-market-102188).

Due to the extensive regulation efforts the time-to-market is long.

VISION AND MISSION

Vision

Two major changes in the world will be of great importance for the future of our company: increasing outsourcing of activities and the fact that we are living in a technology driven world. We anticipate that an increasing number of product design companies will focus on the segments in which they have a strong position, but also that many of these often vertically integrated companies will outsource non-core activities to rationalize their operations. Such activities would be supply chain management (SCM), turnkey solutions, testing, assembly and engineering.

Rapid technological innovation e.g. IoT (Internet of Things) is driving growth in the semiconductor industry. More and more people are connected to each other and to equipment. Equipment is also connected to and communicating with other equipment. And this is only the beginning. We are entering the fourth industrial revolution: Industry 4.0, the collective term for embracing a number of contemporary automations, data exchange and manufacturing technologies. In this context the automotive and industrial markets will be growth engines for the semiconductor market. In the automotive sector the main drivers are electric cars, connected cars, autonomous driving and car-to-car communication.

The developments described above will create a market for specialized service providers focusing on supporting leaner OEMs and Fabless Companies. We are such a specialized service provider, and we have the knowledge to offer these OEMs and Fabless Companies high-quality products, both independently and within our Supply Chain Management. This forms the basis for our growth potential.

Mission

To be a knowledge and technology driven service provider in the field of modern devices that is able to handle the whole chain for complex requirements as well as individual services.

STRATEGY

- We focus on automotive, industrial, healthcare and HiRel markets to grow further in these sectors. To strengthen our technical position, we will invest in new high-technological equipment to be able to service these markets.
- We work with Fabless Companies to show that RoodMicrotec is a competitive SCM partner and encourage them to strengthen the partnership with our company.
- We take full responsibility as a supply chain specialist for every step in the supply chain. This means that we will be involved on a long-term basis in the whole project, from the very beginning up to mass production.
- We will intensify our focus to look for smaller, faster turnaround opportunities in Qualification & Failure Analysis and Test Operations.
- We aim to be an important player in the automotive market, Industry 4.0 and IoT by becoming one of the preferred partners in various consortiums that are developing new technologies and applications and by increasing our scale through partnerships.
- We will extend our industry partnerships, since it is essential to be part of networks and being active in them. For that reason, we have strong partnerships or work very closely with inter alia institutes, like the Fraunhofer IIS, wafer fabs, assembly houses, design houses and universities as well as industry groups and clusters. Within each publicly funded project we are working with a consortium of partners, which opens doors to win them also as a customer
- We will strengthen our internal quality system through maintaining the certification according the version 2015 of ISO 9001, VDA 6.2 and ISO/IEC 17025, with focus on risk assessment.

The above items will result in a good combination of long-term contracts with long lead times and short-term orders with shorter lead times. In future we certainly need short-term orders to generate cash flow while continuing to focus on long-term contracts, which will bring much more stable and predictable recurring sales and underpin our role as the supply chain specialist.

Furthermore, we will:

- Establish direct contact with Tier 1 customers as an ASIC provider. This will enable us to take on more of the tasks in the complete flow, generating higher sales volumes.
- Strengthen relationships with customers, suppliers and appropriate partners (foundries, assemblers, design houses, OEMs and system houses). This will make us stronger as well as a better known and important player.
- Continue to focus on development of new technologies and special requirements from the market, such as optical sensors, high power and RF solutions for the automotive and industrial requirements.
- Strengthen our brand awareness in the market by organizing seminars on e.g. qualification, failure analysis and supply chain activities.

SWOT ANALYSIS

STRENGTHS

Leading position as SCM partner for Fabless companies and OEMs in Europe within the automotive and industrial sectors
Reputation in the market
Highly experienced, excellent knowledge, flexible and creative employees
Customer IP is very well protected
Open for partnerships and collaboration throughout the whole supply chain
State-of-the-art equipment

WEAKNESSES

Size of the company
Presence outside Europe
Limited brand awareness
Handling of very small devices
Keeping pace with technology

OPPORTUNITIES

Growing importance of technological applications and technology-based connectivity
Growing automotive and industrial markets
New technology sectors like Photonics, High Frequency and High Power that fits well within the know-how matrix
Long-term contracts in our focus sectors
Consortiums created in order to develop new technologies, applications and services
Design Houses looking for SCM partners
Obsolescence management and long term storage

THREATS

Projects delayed by customers
The risk that the development of new products also moves to Asia
General semiconductor production in Europe will continue to decline in relation to Far East
Cyclical nature of the semiconductor market
The tight labour market for highly qualified specialised personnel
Competition growing in key areas due to the higher volumes
Not being known as important supplier and technical expert from emerging markets

OPERATIONAL UNITS

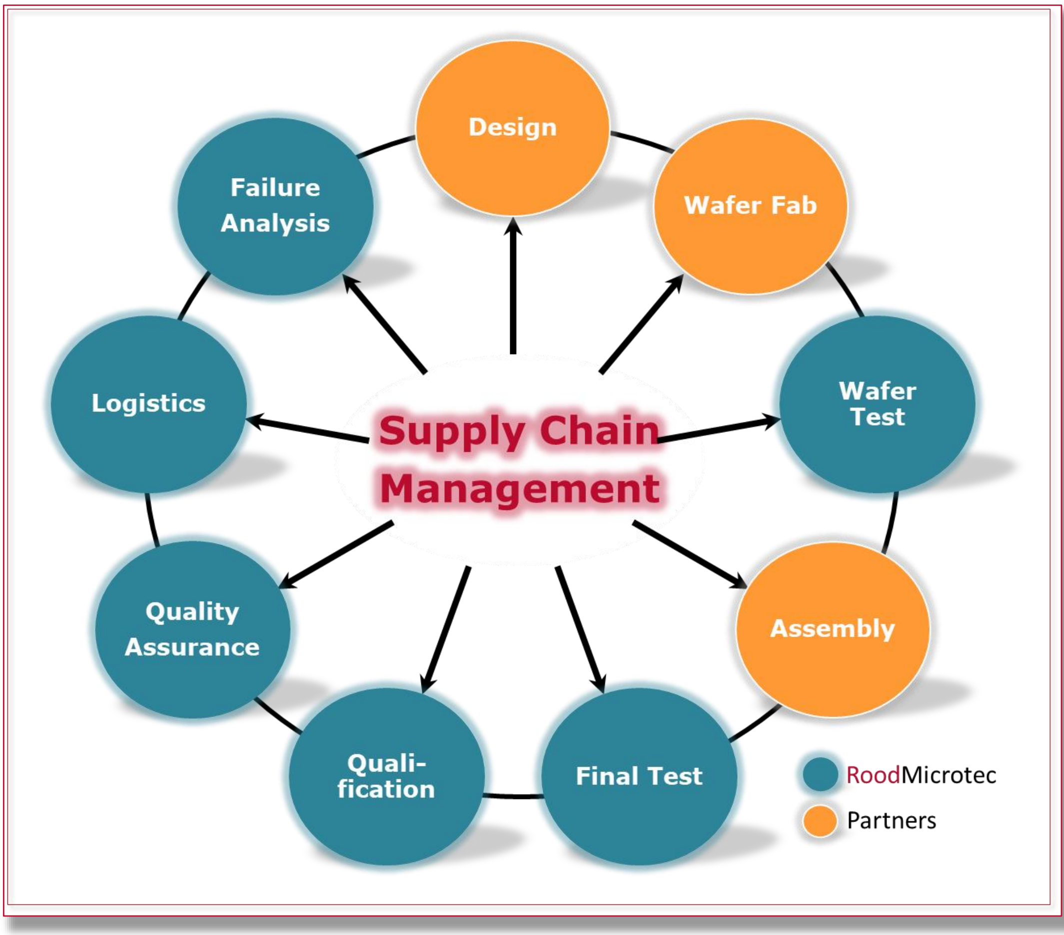
RoodMicrotec offers turnkey services to its customers through its three main units: Supply Chain Management, Test Operations and Qualification & Failure Analysis. These three units offer a complete set of services to meet the requirements for turnkey projects.

Supply Chain Management (SCM)

In this operational unit RoodMicrotec supports customers who wish to launch high-quality semiconductors, in particular ASICs, on the worldwide market. RoodMicrotec provides comprehensive services, from the beginning of the development process (together with design partners) all the way to production and delivery to its customers. The services provided to bring a product successfully to the market include engineering support, test engineering, wafer test, assembly (through partners), final test, qualification and reliability, failure analysis, field return management and logistics.

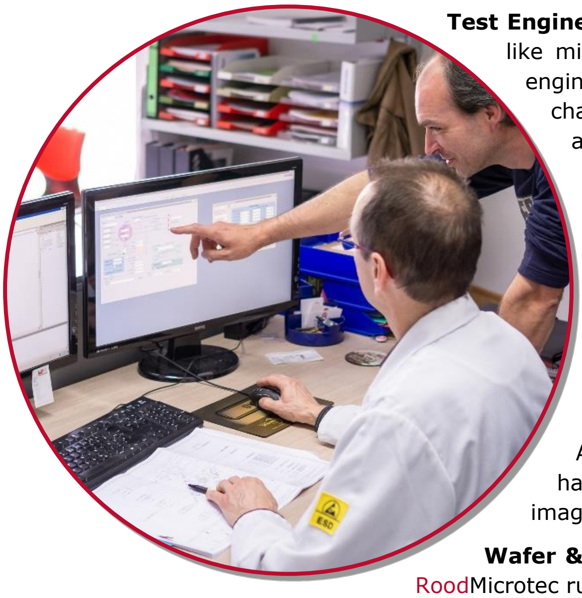
RoodMicrotec achieves this by qualifying and testing suppliers as well as products and, on request, executing the entire project management for such processes for the automotive and industrial markets.

RoodMicrotec handles the complete (turnkey) industrialization of ASICs from the customer's idea up to the final product including all automotive-specific quality assurance activities. RoodMicrotec manages the process 'end-to-end' but can also provide each individual step separately. On request, RoodMicrotec can supply the complete packaged ASIC with peripheral devices on a board (through partners).



Test Operations

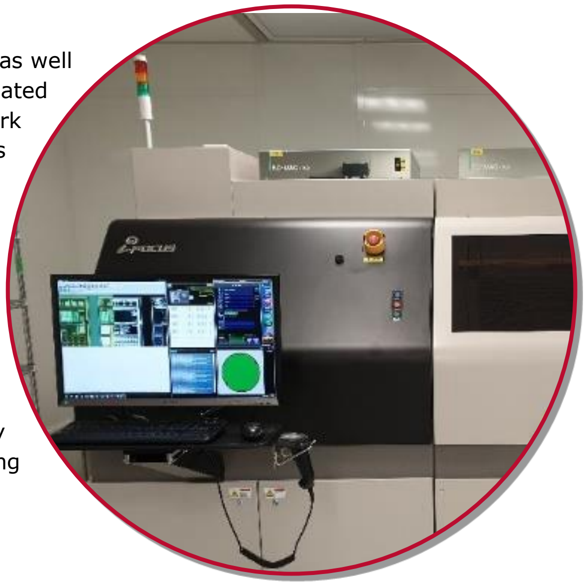
This operational unit consists of two functional areas, test engineering and wafer & component testing. The test engineering area is a support function that provides the wafer & component testing area with solutions for high volume production.



Test Engineering provides complete test solutions for a wide range of devices like mixed-signal, digital, analog and RF ICs. The team of highly skilled engineers develops test programs, probe cards and load boards for characterization, production and qualification to the highest standards as required by the automotive and high-reliability sectors (AEC-Q, ESCC, MIL-STD, JEDEC, TELCORDIA, IEC, and DIN). Services include design for test, test time reduction, yield improvement and data analysis. Our experts have experience of migrating complete test cells, production ramp-up and product validation. Test times in high test coverage are reduced by massive parallel testing. All these services are also available as on-site engineering support for customers.

Extensive know-how is available on several test platforms, e.g. Teradyne Flex, Xcerra (formerly LTXCredence) D10, Advantest/SZ, Advantest 93000 as well as LabView based solutions. The company has extensive expertise in mixed-signal, digital, analogue, memory, RF, image sensors, MEMS and PC applications developed over decades.

Wafer & component testing is the heart of the production function within RoodMicrotec running an automated test floor 24 hour per day, 7 days per week. In this area the services of wafer testing, component testing, component programming, straightening & scanning and end of line of the semiconductor devices are performed.



The test cells utilize state-of-the-art Automated Test Equipment (ATE) as well as specialized PC-based solutions. Test system limitations are compensated by integrating high performance external equipment such as network analyzers or RF signal sources into the test cell. This approach increases flexibility while limiting test costs.

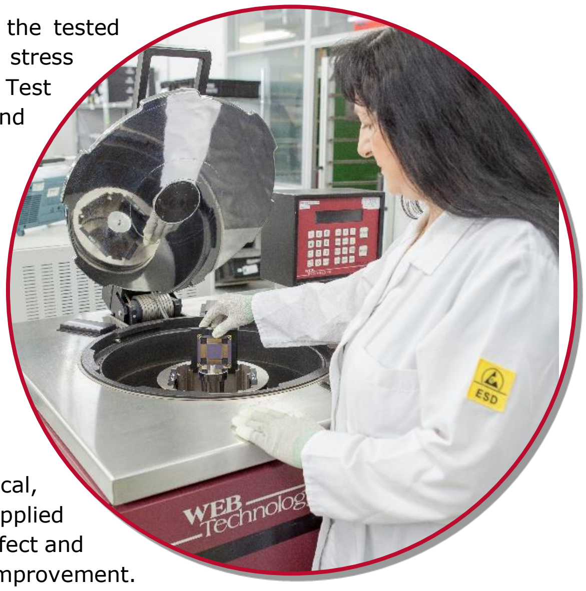
The main goal is to provide service and support to our customers through the whole project by continuous improvement of the processes and systems related to it, offering excellent customer care, in-time delivery with highest quality. To ensure this, also a tight communication structure between the parties involved is essential, so that everything fits the customers' needs. Close relationships are the key in supporting the customer so that they meet their deadlines and commitments. The investments done show that RoodMicrotec is highly competitive in this area of growing technical demands and the growing semiconductor market in general.

Qualification & Failure Analysis

In the operational unit Qualification & Failure Analysis we perform environmental tests to verify the reliability of electrical/electronic components as well as optical systems. We also perform mechanical stress test such as shock and vibration on single components as well as on board level. Additionally, the extensively equipped failure & technology analysis laboratory provides failure, construction and qualification-related analysis of all kinds of electronic parts like wafers, integrated circuits, discrete components, optoelectronic components, electromechanical components, printed circuit boards and complete printed board assemblies. The Qualification & Failure Analysis unit is accredited according ISO 17025.

Electrical qualification and robustness validation of customer components, semiconductors (die and package level), passives and PCBs, under extreme conditions such as climatic and temperature changes as well as vibration and mechanical shock. The investigations determine whether the components meet the required qualification standards. Burn-in is implemented in order to identify parts prone to premature failure. This process forces defective semiconductor devices to fail before they are incorporated into assemblies where they can cause reliability problems in the end product.

Based on the 'mission profile' (subsequent operating conditions/requirements) of our customers' products, we develop customized qualification/reliability concepts that incorporate the necessary stress tests – and ensure the



successful market launch of products. The electrical verification of the tested devices before, during and after (pre-test, interim test, post-test) stress treatment takes place using our in-house automated test systems. Test and product engineers perform test data analysis, failure analysis and data preparation.

Optical qualification focuses on image sensors and light emitting devices such as VCSELs and LEDs. Image sensors are needed for example in the digital photography, high speed image processing, X-ray technology and other applications.

RoodMicrotec will bring in the experience and its knowledge of LEDs and LED lamps in new research and development projects. In former projects our practical experience in failure & technology analysis combined with the capabilities in measurements and reliability tests on LED was highly appreciated.

Failure Analysis of defective devices is carried out using physical, chemical and metallurgical analytical methods. These methods are applied to confirm customer-complained failures, to identify the area of the defect and the failure mechanisms, and to initiate corrective actions for quality improvement. In the area of integrated circuits, new technologies with reduced feature size require expensive expanded capabilities. Therefore, strategic partnerships have been agreed to share equipment and reduce investment.

Construction Analysis and **Destructive Physical Analysis** (DPA) can be performed as part of a reliability assessment. The objective of construction analysis is early identification of potential deficiencies that can cause zero-hour failures or reliability problems. These tests are required for all components used in aerospace applications. Request numbers for DPAs are very stable as the aerospace market is less sensitive to economic cycles. The lab has gained a certificate to perform DPAs for space applications according to the RA.0010.900.10 standard.

Qualification-related analyses are carried out before and after various qualification tests. The purpose of these investigations is to determine the influence of these environmental tests on package and chip-related problems.

With our focused ion beam (FIB) system, we offer our customers chip modifications, circuit editing, micro cross-sectioning, TEM lamella preparation, micro-machining and material science applications.

Research and development

To remain a strategic supplier to our customers as well as being on the leading edge of technology it is necessary to invest in new technologies. This is done through internal research and development projects as well as through external publicly funded projects. In order remaining a well-recognized player it is necessary to increase the brand awareness, which is done by publishing technical articles, by giving presentations around Europe during exhibitions and conferences and by organizing seminars.

The internal research and development projects are mainly focused on new areas of capability. The decision has been taken to focus on three main areas; high power electronics, high frequency solutions and opto-electronic devices. In addition, the company invested in innovations by means of partnerships in publicly funded projects. In 2019 five projects in the field of Industry 4.0 / IoT were running, two have been successfully finalized. The next project - APPLAUSE– starting in 2020 has been secured in 2019. Being a part and recognized partner in publicly funded projects gives RoodMicrotec many advantages, such as getting access to brand-new technologies and networking with the partners and other companies within the projects.

Publicly funded projects

EuroPAT-MASIP (European Packaging Assembly and Test pilot for Manufacturing of Advanced System in Package) is a cooperation of 28 partners, which will make a significant contribution to European competitiveness and job creation in the electronics industry and belongs to the ECSEL program. The funded project involves the development of ASICs (Application Specific Integrated Circuits) for a MEMS gyroscope, for an image sensor, and for Radio Frequency (RF). Special task for RoodMicrotec in this project is the leadership of the work package for test, qualification & reliability and failure analysis.

GaNScan (Mapping and modelling of industrial GaN/Si-wafer substrates for optimized yield production of GaN HEMT components in power electronics) is a German project in which RoodMicrotec and its two partners will develop reliable processes for testing of Gallium Nitride-on-Silicon wafers as well as prototype high-power GaN devices. At the moment the GaN technology is going to be industrialized in the field of high frequency and power electronics.

APreMedI (Appropriate testing of electrically active medical implants) is a German funding project. Together with a research institute and a small implant manufacturer, RoodMicrotec will develop test strategies for the validation of flexible encapsulated active implants, such as hearing aids or active electrodes. A test setup will be realized that performs accelerated life tests on implants to check their reliability.

APPLAUSE (Advanced packaging for photonics, optics and electronics for low cost manufacturing in Europe) is the newest companion in RoodMicrotec's funding project portfolio. This project fosters the European semiconductor value chain by building new tools, methods and processes for high volume manufacturing and is funded national and international. A consortium of 31 key players for packaging of electronics, optics and photonics, leading equipment suppliers and testing experts from 11 countries launched this new project. RoodMicrotec takes over a leading role in APPLAUSE as leader of the work package "testing, reliability, failure analysis and metrology".

Quality Management - 'Quality First'

RoodMicrotec takes care of the provision of the products at the "right" time in agreed quality according to defined safety and reliability requirements. The basis for this is our quality management, which includes forward-looking quality planning and its implementation in all relevant business, service and production processes.

Our challenges with a view to 2025 are to ensure that we meet the future quality and reliability requirements for autonomous driving, active implants and safety technology. That is, the transition from ppm (parts per million) to ppb (parts per billion).

This requires a continuous improvement of quality management, its processes and procedures and demands a high level of dedication and commitment from our employees. The QM-System of RoodMicrotec is certified to ISO9001:2015 and according to the automotive requirements VDA6.2 for service providers.

The company is certified under ISO9001:2015 and VDA6.2 which both include risk management as part of the systems. The company has an implementation where this is discussed in the management meetings as well as in the supervisory board meetings on a regular basis. The management team is also conducting management reviews on a yearly basis where this is one of the points of review. No major risks have been identified during 2019 but both the management as well as the board are aware of the volatility of the semiconductor industry and the need to be able to offer the right solutions to the customers. To be able to do this it is necessary to make certain invests which can be large for this company size but necessary to stay competitive. All major investments are decided in the supervisory board meetings based on business model calculations.

RoodMicrotec's laboratories for Qualification & Failure Analysis in Nördlingen and Stuttgart are accredited by the DAkkS, the German accreditation body, as compliant with ISO/IEC 17025, 'General requirements for the competence of testing and calibration laboratories'. This accreditation is valid only for the scope of accreditation which is listed in the appendix of the certificates (PL-12120-01-01 and PL-12120-01-02).

Human Resources and Sustainability

The daily work in human resources is determined by the requirements of demographic change, diversity and digitalization as well as their current and future effects. In 2019, we faced major challenges both in the search for new talented employees and in the qualification of existing employees. In order to meet the requirements of our national and international customers, we were looking for well-trained and experienced employees and, within the scope of our "Quality First" program, we improved the awareness of quality among existing employees. However, the unemployment rate of 5% in Germany, 2.8% in Bavaria and 3.2% in Baden-Württemberg, according "Agentur für Arbeit", made it very difficult for us to find suitable candidates. Therefore, further training continued to be the focus in 2019. In addition, we attach great importance to the internal apprenticeships of young junior employees to become industrial clerks, mechatronics engineers and IT specialists.

The average number of full-time employees (FTE) in 2019 was 96 FTEs. Some employees retired, but among other things, we were able to expand our engineering team with very well-trained candidates from the national and international environment. The company has a very healthy age structure with a good combination of experienced and young persons. Our motivated and ambitious team has committed itself to show high technical and personal competence. They will work innovative to think and act in a proactive way to take over responsibility. By showing entrepreneurship, they will focus on the highest quality and live as flexible as possible to meet the customer needs. They have also committed themselves to living according 5S standards and provide value added solutions.

Candidate members of the Supervisory Board and the Board of Management become primary nominated on the basis of experience, expertise and personality. When selecting candidate members for the Supervisory Board and the Board of Management the company strives for diversity in composition in terms of nationality and ethnicity, gender, age and background in education and work experience, technical expertise and competencies. On the Board of Management and the Supervisory Board in 2019 there was no diversity in terms of gender.

FINANCIAL RESULTS

Sales and result

In 2019, RoodMicrotec's total income came in 1.5% lower than 2018 at EUR 13.2 million (2018: EUR 13.4 million) with 94% of its total sales in the European countries. The total income was affected by the decline in the semiconductor industry sales. The decrease in total income in RoodMicrotec was less than the 7.3% decline reported by the Semiconductor Industry Association (SIA) for the total industry sales in Europe. The worldwide semiconductor industry declined by 12.1% (2018: +13.7%).

Total income in the industrial/healthcare sector rose by 14% to EUR 6.9 million (2018: EUR 6.0 million) and represents 52% of the total income. This was mainly due to the ramp up of new industrial and healthcare projects but also increased demand from already existing customers. Total income from the automotive sector declined in 2019 by 13% to EUR 4.7 million (2018: EUR 5.4 million). This decline was due to a loss of a major project by one of our customers which resulted in a drop-in demand. The HiRel / Aerospace segment declined by 9% to EUR 0.8 million (2018: EUR 0.9 million). The total income in this sector mainly consists of failure analysis and qualification work and this is very much depending on the design cycles at our customers. Total income in other sectors declined by 24% to EUR 0.8 million (2018: EUR 1.1 million).

Total income by market sector:

(x EUR 1,000)	2019	2018	change
Automotive	4,674	5,395	-13%
Industrial/Healthcare	6,883	6,024	14%
HiRel / Aerospace	852	937	-9%
Others	808	1,069	-24%
otal	**13,217**	**13,425**	**-1.5%**

In 2019 the total income in the operational unit Test Operations came in 7% higher, at EUR 6.5 million (2018: EUR 6.1 million) and continues to run at a good utilization level. The total income in the unit Qualification & Failure Analysis declined by 12% to EUR 3.6 million (2018: EUR 4.1 million). In the second half of 2019 the unit reported an increase in total income thanks to new customer engagements. Total income in the Supply Chain Management unit declined by 5% to EUR 3.1 million (2018: EUR 3.3 million) mainly due to one specific, cancelled customer project which had started to ramp up in the fourth quarter of 2018 but was stopped at the end of 2018 and affected the total income in the automotive market sector.

Total income results per operational unit:

(x EUR 1,000)	2019	2018	change
Supply Chain Management	3,131	3,283	-5%
Test Operations	6,482	6,060	7%
Qualification & Failure Analysis	3,604	4,082	-12%
Total	**13,217**	**13,425**	**-1.5%**

In 2019 the EBITDA was EUR 1.5 million and the EBITDA margin came in at 12% (2018: 10%). Adjusted EBITDA (excluding the impact of IFRS 16, for comparison purposes) was EUR 1.2 million and the adjusted EBITDA margin was 9%. Personnel expenses increased by 4%, average number of employees on a full-time basis rose from 94 to 96 in 2019. The adjusted other operating expenses decreased by 10%. Operational expenses were positively affected by release of a provision for a legal case and release of an accrual for a tax assessment closed in 2019.

(x EUR 1,000)	2019	2019 not including IFRS 16 policy change	2018	change
EBITDA	1,539	1,247	1,383	-10%
% of total income	12%	9%	10%	

The net profit in 2019 was EUR 0.1 million negative, a decrease of EUR 0.2 million versus 2018, primarily affected by increase in raw material and consumables.

Financial position

The balance sheet total increased to EUR 14.3 million in 2019 (2018: EUR 13.6 million). The increase in balance sheet total is mainly due to adoption of IFRS 16 (+EUR 0.9 million). Equity decreased by EUR 1.3 million, from EUR 5.2 million to EUR 3.9 million due to remeasurement of the Plentum bonds part of Plan assets. Solvency was 28% at year-end 2019, compared with 38% at year-end 2018.

(x EUR 1,000)	2019	2019 not including IFRS 16 policy change	2018	change
Cash from operating activities	1,156	854	563	52%
Capital expenditure	1,745	1,745	446	291%

At year-end 2019, RoodMicrotec had a net cash position of EUR 1.0 million (year-end 2018: EUR 1.7 million). The decrease in the cash position was largely caused by investments done in equipment. The operating activities contributed positively to the cash position with EUR 1.2 million. Adjusted operational cash flow (excluding adoption of IFRS 16, for comparison purposes) was EUR 0.9 million (2018: EUR 0.6 million).

Capital expenditure amounted to EUR 1.7 million (2018: EUR 0.4 million). In 2019 RoodMicrotec invested in an optical wafer inspection system to extend the offered services for our customers. Investments mainly comprised replacement and expansion investments in materials and resources to facilitate growth.

Financial objectives

- Our primary long-term objective is a substantial growth in total sales.
- EBITDA at 12-17% of total income and EBIT at 6-12% of total income by continuously optimizing our operations through cost awareness and efficiency improvements.
- Profit before taxes between 4% and 10% of total income, which we only can achieve if we raise production volumes, sales and efficiency.
- A strong solvency ratio of between 38-50% helps us to strengthen confidence among customers, to guarantee continuity, to obtain loans and secure growth.
- We strive for a working capital ratio between 1.0 and 1.5. As a service provider and project organization this is a key element of our balance sheet. We must be able to secure sufficient funding to invest promptly in projects. Working capital is therefore vital to our future growth.
- For the debt ratio (net interest-bearing debt divided by EBITDA) our target is between 1.0 and 4.0, which is important for growth financing and for obtaining long-term projects. This ratio gives us a solid position that can be defended vis-à-vis the bank syndicates.

MAIN DEVELOPMENTS DURING 2019

Stable total income

Our realized total income of EUR 13.2 million (2018: EUR 13.4 million) showed a marginal decrease of 1.5% compared to 2018. However, we outperformed the declining semiconductor market in 2019 and the challenging market conditions in the automotive sector. We also reported a substantial increase in the second half compared to both the first half of 2019 and the second half of 2018. The Test Operations business unit shows a steady increase and continues to run at a good utilization level and the Qualification & Failure Analysis business unit reports a total income increase in the second half of 2019 thanks to new customer engagements.

SCM projects

During the last quarter of 2018 and the first quarter of 2019 three out of the earlier reported four SCM projects under negotiation have been booked as projects and are now in the engineering phase. Production for these projects will be started in 2020 and 2021. Additionally, three new projects, two in the automotive market and one in the industrial market, are under negotiation with different customers. These projects range from full turnkey services, including design and wafer sourcing, to projects where RoodMicrotec will do testing, packaging and logistics.

Collaboration/partnerships

To the existing major collaboration agreements with several European leading and successful Fabless Companies (design houses) we have added additional partners. Due to their growth, the design houses felt a need to select a specialist supplier who could support them in manufacturing high-grade microchips (high-reliability chips). Our experience, knowledge and infrastructure, including our equipment, proved to be a perfect match to the design house's needs.

These developments and also the fact that we are really accepted by a number of big players in the market (assembly houses, wafer fabs and Electronic Manufacturing Services Companies) proves that we are recognized as a serious player. This, along with concluding contracts and receiving orders, is very important for our reputation and our visibility in the market, and therefore crucial for our future growth.

RoodMicrotec and CoreHW to establish long-term supply chain partnership

With CoreHW, a Finnish fabless semiconductor company offering state-of-the-art full custom IC turnkey solutions, IP and design services as well as own IC products, RoodMicrotec signed a Letter of Intent expressing the commitment to enter into a long-term partnership. This partnership is based on core strengths of the two companies and both sides will take full advantage of it. RoodMicrotec and its network of manufacturing partners are providing a strong basis for a competitive supply of CoreHW's advanced products.

Strengthening sales

In September 2019 RoodMicrotec signed a contractual agreement with KERR s.r.l., who will be using their presence, knowledge and network in Italy to promote and sell RoodMicrotec's services to the Italian market.

Publicly funded projects

During 2019 we worked on four running publicly funded projects. We again gained a new publicly funded project for six industrial use cases, running for three years. APPLAUSE is a great chance to develop new technologies for the next generation of advanced packaging for the ever-growing photonics industry with regards to testing and qualification. RoodMicrotec acts as leader of one work package and is national coordinator in Germany.

Certification and accreditation

Accreditation of our laboratories according ISO/IEC 17025 has been successfully confirmed. Since April 2019, RoodMicrotec is VDA6.2 certified. This extension to the ISO9001:2015 is focused on automotive requirements.

Communication and seminars

On October 10th, RoodMicrotec organized a successful seminar about "Electrical Overstress (EOS)". The seminar illuminated failures with an EOS error signature and showed the variety of actual causes for EOS. Experienced experts gave their views on the issues, illustrated by many case studies. We welcomed 22 participants, who gave very positive feedback.

Legal proceedings

After the court had given a verdict in a running legal case RoodMicrotec has released the EUR 124,000, which had been accrued for in this matter. In August 2019, the debtor decided to appeal against this verdict.

Expanding SCM services into ASSP market

A Memorandum of Understanding was signed with Fraunhofer Institut für Integrierte Schaltungen IIS and EBV Elektronik GmbH, announcing cooperation in production and marketing of Fraunhofer ready to use chip IP. EBVchips will contribute with their marketing and sales platform. RoodMicrotec takes care of the complete logistics, quality assurance, technical realization and project management from the first idea to the delivery of serial parts.

Intensifying Obsolete Management Support

RoodMicrotec and Totech Europe B.V., a Dutch company and world leading manufacturer of storage and humidity control solutions under their trademark Super Dry Totech, signed a cooperation agreement bundling the core competences of both companies offering long-term storage and related quality testing services of semiconductor components to the market. Under the cooperation agreement, the parties will be offering long-term storage and related quality testing services of semiconductor components. The partnership is based on core strengths of the two companies and both sides will take full advantage of it. Totech provides long-term storage of materials and components at their facilities in Zwolle, the Netherlands. RoodMicrotec will be providing electrical tests and physical analyses of semiconductor components prior to storage, as well as periodic quality monitoring during storage and before shipping components back to the customer.

Main invests

RoodMicrotec installed an automatic optical inspection (AOI) system, STI iFocus 505, for semiconductor wafers. The industry’s requirements especially in the automotive sector are quickly developing towards a full automation of processes. The system is able to handle and inspect wafers in 6-, 8- and 12-inch size as well as partial wafers. The system fully integrated in the production process detects failures and damages of incoming wafers and ensures the quality of outgoing wafers.

Corporate seat moved

In May 2019 the office and legal seat of RoodMicrotec N.V. was moved from Zwolle to Deventer.

Changes in Management and Supervisory Board

Mr. Reinhard Pusch, COO and managing director, retired mid of 2019. Mr. Arvid Ladega was appointed CFO and managing director of RoodMicrotec N.V. and Mr. Jan de Koning Gans and Mr. Klaus Dittmann were appointed managing directors of RoodMicrotec GmbH. Mr. Martin Sallenhag remains CEO and managing director of both entities.

Mr. Jeroen Tuik and Mr. Herman Bartelink stepped down from the Supervisory Board. Mr. Marc Verstraeten was elected as new Supervisory Board member for a period of four years during the Annual General Shareholders Meeting in May 2019.

New auditor

In May 2019 Baker Tilly Berk N.V. informed RoodMicrotec that they would stop auditing listed companies as from financial year 2019. After an intense search, RoodMicrotec decided to appoint KPMG Accountants N.V. as auditor for the coming four years. This will bring stability to the company with this long-term engagement.

50-year celebration

In an afternoon-event on the 20th November 2019 we celebrated 50 years of our location in Nördlingen with our employees, some former employees, heads of our neighborhood companies and special selected VIPs/politicians from Nördlingen. It was a pleasant festivity combined with a plant tour for external guests.

FOCUS AND ACTIONS 2020

Focus

We will continue to focus on the automotive and industrial markets since they are expected to grow significantly over the next years. Additionally, we will also intensify our efforts in the increasing healthcare market. Here we see a great need for new and innovative solutions to help the ever-aging population of the world. To continue offering ASIC turnkey services in conjunction with several fabless design houses and OEM customers is essential to win new projects for industrialization and recurring business.

In the markets where we operate it is mandatory to deliver high quality and we will continue to improve our internal processes to excel the already very high-quality standard that RoodMicrotec is operating under. This will increase our competitiveness and also give our customers an advantage in the market.

We will invest in new machinery and personnel to be able to meet the demands from our customers as well as the markets. With the publicly funded projects that we engage in, we are improving our technical position for the future and they also bring new opportunities to engage with potential future customers. We will continue to look for a solution for the refinancing of the secured bond loan of EUR 2.5 million.

Actions 2020

- Analyze and invest in new machinery where necessary. This can be for capacity, capability or technological reasons and will apply in all areas such as tester, prober, handler or end-of-line.
- Delivery of a second V93k tester is planned for the first quarter of 2020 to be able to handle the increasing volumes from the customers.
- Continue to invest in knowledge and know-how in three future technology areas, high power electronics, high frequency and photonics (image sensors, optical transceivers, photonic chips, etc.).
- Widened focus on modern packages such as Wafer Level Chip Scale Packages (WLCSP) and chip-on-board requirements.
- Continue the development of increased stress coverage for our customers using mission profiles and other application specific conditions, in other words Robustness Validation.
- Qualify and characterize LEDs and VCSELs at wafer level on our automated test systems.
- Improve brand awareness of RoodMicrotec through professional articles and seminars for customers and other stakeholders. Being present and hold presentations on well selected, dedicated fairs and conferences.
- Strengthen the customer base in our key market segments by approaching new strategic customers with high potentials with presentations on special subjects e.g. Failure Analysis at customer sites to convince them of our efficiency and trustworthiness.
- Further cooperation with partners in national / international publicly funded projects to be part in the development process of modern technologies and to enlarge our business potential.
- Continuous improvement and automation of all process flows to be in-line with the VDA 6.2 standard.
- The number of employees will be maintained at the same level as in 2019. This will enable us to continue to give excellent services to our customer base even at a higher utilization rate.

OUTLOOK

At this stage, it is not possible to reliably forecast either the duration of the COVID-19 disruption or its impact on the Group's business and financial results for 2020 and 2021. RoodMicrotec accordingly withdraws all its earlier guidance for 2020 and 2021 and will provide further updates as and when appropriate.

The spread of the COVID-19 virus together with the refinancing or extension of the maturity of the secured bond loan, which is due and payable on 30 June 2021 have been identified as events that indicate the existence of a material uncertainty that may cause substantial doubt about the company's ability to continue as a going concern. Please refer to the paragraph 'Going concern basis of accounting' in the notes on page 55 to the consolidated financial statements.

Board of Management

O.M. Sallenhag, CEO

A. Ladega, CFO

Deventer, 10th June 2020

SUPERVISION & RISK MANAGEMENT

MEMBERS OF THE SUPERVISORY BOARD

Victor George Tee

Chairman

(1943) (British)

- Mr. Victor Tee joined the Supervisory Board in 2009.
- He became Chairman in 2013.
- More than 40 years of experience in the Electronics and Semiconductor industries.
- He started his career as an electronic systems design engineer and has held senior management positions at Philips, Siliconix and most recently as CEO at Millennium Microtech.
- Vic lived and worked in Asia for 20 years and operated internationally.
- His wide network is based on both operational and board levels globally.

Marc Verstraeten

(1966) (Dutch)

- Mr. Marc Verstraeten joined the Supervisory Board in 2019.
- He studied Business Economics at Tilburg University (Netherlands), as well as Postdoctoral Accountancy (Registeraccountant).
- After university, he started working at KPMG and worked there for 10 years as an external auditor in the international audit practice of KPMG in the Netherlands, including due diligence specialty.
- Beginning of 2001, Marc left KPMG and joined DOCDATA N.V. where he worked for almost 17 years in Finance functions (i.e. Corporate Controller, Finance Director, CFO).
- He has extensive experience with public listing at Euronext Amsterdam, corporate governance, compliance, internal audit, legal (Company Secretary), M&A, investor relations, stakeholder management and Boardroom dynamics (Secretary of Supervisory Board).
- Currently, Marc is working independent on a flexible basis and available for assignments as advisor, interim CFO and Supervisory Board member.

REPORT OF THE SUPERVISORY BOARD

We hereby present the 2019 Annual Report of RoodMicrotec N.V. as prepared by the Board of Management in accordance with article 26 of the Articles of Association of the company.

The 2019 Annual Report, prepared by the Board of Management and including the 2019 financial statements, has been audited by KPMG Accountants N.V. The independent auditor's report relating to the financial statements is included on pages 105 to 114 of this report. We discussed the Annual Report with the Board of Management in the auditor's presence. Based on this meeting, we are convinced that the Annual Report forms a solid basis for the Supervisory Board's accountability for its supervisory duties. During the process of preparation and audit of the 2019 financial statements of the company, the Supervisory Board has closely supervised the Board of Management during their management of key topics, such as the going concern assessment, the goodwill impairment test and the valuation of the pension plan assets.

We propose to the Annual General Meeting of Shareholders to be held on 23 July 2020 to:

- adopt the financial statements for the financial year 2019;
- discharge the Board of Management from liability for its conduct of business in 2019;
- discharge the Supervisory Board from liability for its supervision of the management in 2019;
- charge the net loss for the financial year 2019 to the retained earnings reserve within equity.

RoodMicrotec in 2019

As reported last year, the company under its new management has made significant progress transforming into a healthier enterprise with a more certain future. The test of the robustness of it came in 2019 when the market served suffered a major downturn due to uncertainties of the global economy and general market trends, not least in the automotive sector where issues regarding the long-term move to electrification remain challenging. From a positive perspective the envisaged industrial and technology changes clearly indicate an assured growth of the semiconductor industry and the longer-term leading indicators of technology and manufacturing equipment development clearly support this view.

The consequence of the downturn on the company's business was not unexpected and the management took a diligent approach to weather the storm, keeping the company in more than adequate shape in readiness for the expected upturn as the above-mentioned matters become clearer. The morale of the workforce remains high, largely due to the excellent openness and internal communication culture now embedded in the company. This is evident from the discussions we have during the annual Works Council meetings.

As is done every year, the business development strategy was presented by the Board of Management to the Supervisory Board where it was discussed and adjusted accordingly. Key elements of the strategy were then embedded into the personal objectives of the CEO and waterfalled throughout the Company. Overall, we are satisfied the company remains on the correct strategy for its current size and position in the industry with projects that match well with the underlying technological changes. The historical trends of the semiconductor industry regarding periodical volatility within a strong long-term growth have not changed and can be reasonably expected to continue for the foreseeable future.

The changes to the Supervisory Board in 2019 have delivered the desired result providing a more balanced and effective coverage of supervision for the company. The regular combined meetings of the Board of Management and Supervisory Boards progress well with excellent teamwork, where all members make a significant contribution. We are therefore encouraged and confident our approach to guiding the company forward is the correct model.

Supervisory Board meeting schedule

The Supervisory Board gives the highest priority to good governance practice. The Supervisory Board met with the Board of Management on a monthly basis during 2019 and also a two-day induction meeting has taken place. In addition to the regular monthly meetings, the Boards met during both shareholders meetings and bondholders' meetings held in May (general meeting) and November 2019 (extraordinary meeting). Additionally, a number of other meetings were held between individual members of the Board of Management and the Supervisory Board. These other meetings included frequent regular contacts between the CEO and the Chairman of the Supervisory Board, as well as various contacts between the CFO and Mr. Verstraeten related to his appointment in May 2019 as a new member of the Supervisory Board, as well as to the process of engaging a new independent auditor.

These meetings were held in various locations of mutual convenience, including corporate head office, at the production sites in Stuttgart and Nördlingen and at convenient locations close to other coinciding meetings such as visits to customers. They were held either face to face or by using teleconferencing.

In the Supervisory Board meetings, the following topics were reviewed and discussed extensively:

- the business update, operational and financial targets;
- development and changes in the management team and appointments;
- the financial position, liquidity & banking relations;
- relevant capital expenditures;
- business development strategy (including strategic M&A options);
- the scope and strategy of the company and the related risk profile;
- corporate governance issues;
- communication with investors & analysts;
- succession planning and recruitment;
- risk management;
- legal disputes and court case;
- remuneration;
- financial audit;
- publishing of press releases.

During the second half of 2019, very high priority of the Supervisory Board was given to the process of engaging a new independent auditor, which took extensive effort. The financial statements for the financial year 2018 were audited by Baker Tilly Berk N.V. As announced at the Annual General Meeting of Shareholders of the company held on 23th May 2019, Baker Tilly Berk N.V. formally informed the company only in May that as of 1st July 2019 they would no longer audit Dutch public interest entities ('Organisaties van Openbaar Belang, OOB'). As a consequence of this, the company had to engage another audit firm with the utmost urgency.

RoodMicrotec N.V. does not have a separate Audit Committee due to the size of the company and thus the functions of the Audit Committee are handled by the Supervisory Board. As part of the selection process, representatives of all six remaining audit firms that have a license to perform statutory audits of Dutch public interest entities ('Organisaties van Openbaar Belang, OOB') were contacted (i.e. KPMG, PwC, EY, Deloitte, BDO and Mazars). The Supervisory Board concluded that the Company had formal (consultancy) engagements with one of these audit firms, impairing their independence, and that none of the other firms was willing to participate in the tender and selection process except for one, being KPMG Accountants N.V. The Supervisory Board was pleased that an agreement with KPMG Accountants N.V. could be reached swiftly thanks to the professional approach of all people involved in the process. KPMG Accountants N.V. was therefore nominated as the company's statutory audit firm as they have no material formal relationship with the company and can act independently. KPMG Accountants N.V. is considered to have the appropriate expertise and resources available to enable them to provide the audit services required. The Supervisory Board recommended the appointment of KPMG Accountant N.V., represented by Mr. John Verhoeven as statutory auditor, as the company's independent auditor for a period of four years starting with the financial year 2019. The proposal to grant the engagement for the audit of the financial statements for the financial years 2019, 2020, 2021 and 2022 to KPMG Accountants N.V. was approved by the Extraordinary Meeting of Shareholders held on 26th November 2019.

The Supervisory Board met with representatives of the Works Councils both in Stuttgart and Nördlingen in the absence of the Board of Management to discuss the position of the company. The meetings were very constructive, with the teams on both sites expressing their thoughts on areas of improvement.

The Supervisory Board was able to provide personal support on several occasions throughout the year for strategic business discussions both internally and externally with potential alliance partners.

In all Board Meetings during 2019 all Supervisory Board members and all Board of Management members were present.

Supervisory Board composition and evaluation

The Supervisory Board comprises of two independent members both of whom meet the requirements of the Corporate Governance Code. Following the prescribed 8 (4+4) year term of Mr. Tee, he was reappointed with shareholder approval for further 2-year terms in 2017 and 2019 due to the need for oversight continuity given the significant changes of the Board of Management and the Supervisory Boards over that period. It is noted his current and last term will end in 2021.

With the exception of one remuneration committee meeting, there were no separate committee meetings in 2019 as all topics were discussed in the joint meetings with the Board of Management following an independent review by the Supervisory Board. In the remuneration committee meeting the remuneration of the Board of Management was discussed and evaluated against a set of companies that can be view as representative to its business. Based on this the updated remuneration was implemented. The composition of the Board of Management was also discussed during this meeting and the conclusion was that the Board of Management is well composed for running the company in the present stage.

The regular monthly meetings of the combined boards that operated through 2019 provided an open dialog platform for sound governance of the company. In addition, each of the boards separately and independently evaluated their performance and where necessary the ISO control documents were updated accordingly. An additional benefit of the combined boards approach is the provision of 360-degree feedback regarding performance.

The two independent members of the Supervisory Board and all procedures of the Supervisory Board are considered adequate for a company of this size. With the regular interaction between the Board of Management and the Supervisory Board where all items are discussed and the insight the Supervisory Board has in the daily work of the company it is not deemed necessary to install a separate internal audit function.

With the increasing demand on public companies to report on financial items it was identified in the beginning of 2019 that there was a need to strengthen the financial know-how of the Supervisory Board. As a result of this Mr. Verstraeten, who has vast experience as CFO of a public company listed at Euronext Amsterdam, was elected in May 2019 to strengthen the Supervisory Board. The knowledge of the Board of Management and Supervisory Board was reviewed in the board meetings and is considered to be well established for the company.

Member of the Supervisory Board	**Start Current Term**	**End Current Term**
Mr. Victor George Tee (Chairman)	2019	2021
Mr. Marc Verstraeten	2019	2023

Deventer, 10th June 2020

The Supervisory Board

V.G. Tee, Chairman

M.E.T. Verstraeten

RISK AND RISK MANAGEMENT

General

Our policy is aimed at growth in conjunction with a relative reduction of market risks. Operational, market-related and financial aspects play an ever-increasing role in achieving this.

Operational

Total income in Test Operations inclusive Test Engineering make up approximately 49% (2018: 45%) of total income. In this sector we have a strong reputation and we have built up a relationship of trust with our major customers. Total income in this sector as part of the overall total income is increasing over the last five years. In response to this trend – moving semiconductor manufacturing to Asia - we have strongly increased the spread within our total customer base over the past few years, which has reduced risk. While we have long-term contracts with many of our major customers, these contracts do not include purchase guarantees. Risks are mitigated by intensive communication with customers on anticipated volumes. Other total income is made in the sectors Supply Chain Management and in Qualification & Failure Analysis. We focus on high-end work and long-term projects specifically in Supply Chain Management, which further reduces operating risks. During 2019, the sales from one of our long-term customers has increased significantly and it is now exceeding 10% of our total income. This is mitigated by a very close cooperation with this customer on all levels, from technical meetings through production planning to sales and management discussions. In the situation that our customer base will decrease and not compensated by new customers this will impact our growth ambitions or even could result in decreasing financial results.

Costs - Globalization is putting increasing pressure on prices in all areas, but particularly in our Test Operations. This requires constant focus on improving cost management, reducing costs, optimizing the test equipment load and intelligent solutions. Salaries and associated pension commitments are also monitored closely, as they make up more than half of our total costs. Using temporary staff is vital for RoodMicrotec's operations in Germany in order to reduce risks. Currently, there are many employees on permanent staff in our Test Operations. In other market sectors in which high-quality staff is being used, there is a limited staff surplus cost risk. There is a shortage of highly trained technical staff in Europe. In case there is a significant drop in business, we are not able to significantly decrease our cost level on a short notice which could impact the financial results.

Qualified staff - In view of the advanced technological level of our operations, the company is highly dependent on qualified staff. As it is not always easy to find such staff in the employment market, we have opted to set up our own training program in order to reduce the risk of not being able to attract qualified staff. We also collaborate with engineering firms and are in close contact with universities in order to attract bachelor and master students.
The fact that RoodMicrotec has a branch in the University City Stuttgart puts it in a better position to recruit high-quality staff. In the situation that we experience significant difficulties in hiring qualified staff, this may impact our financial results from both a total income and cost perspective.

Market risks

We operate in a highly cyclical market, which shows a slowdown in the second half of 2019 with a total decrease of semiconductor sales in Europe for the full year, which also directly negatively impacted our total income level in 2019. In general, the semiconductor market will grow in the future but with expected lower growth in the coming years. The demand of semiconductors, however, continues to rise, also in Europe. We have opted for this growth segment – the supply chain from Europe to Asia and back to Europe and the rest of the world – from the point of view of risk management as it better safeguards continuity.

In the past, various customers (IDMs) used RoodMicrotec as a way to generate additional sales in a short time span, which increased the company's exposure to market fluctuations. In view of this, we reduced our risk and are increasingly focusing on customers who wish to outsource their test activities on a long-term basis, such as Fabless Companies and OEMs. This exposes the company to the upswings and downturns of the market, but also allows it to generate sales during downturns to customers who opt for outsourcing.

RoodMicrotec's ideal and preferred form of outsourcing is for customers to contract out the entire supply chain to RoodMicrotec, including all their engineering, qualification & failure analysis and test activities. The company offers a turnkey solution to the automotive, industrial, healthcare and HiRel / Aerospace markets. Not being able to hire good engineers presents a significant risk. RoodMicrotec mitigates its risks through an active personnel policy seeking a balance between permanent and temporary staff on the one hand and young and experienced staff on the other.

Competition

In Europe we face competition from a number of countries. We aim to minimize our risk as an independent European semiconductor company by basing our sales and operations in the Netherlands, Germany and Britain and having agents in Italy, Switzerland, Israel and India as our main partners.

Finance

The company's activities are exposed to a variety of financial risks: market risks (including currency risks), credit risks and liquidity risks. The company's overall risk management program - with respect to the use of the main financial instruments - is described below.

Financial markets and liquidity risks - We operate in a capital-intensive market, where significant fluctuations are a normal phenomenon. Dealing with such fluctuations requires having enough available cash. The financial market circumstances may influence and/or damage the financing of our activities. Considering fluctuations in the financial markets, we prepare sensitivity analysis in our 5-years-rolling forecasts, cash flow prognosis, and investment budgets. Based on these analyses, we conclude in early stage equity line arrangements with our large investors and / or loan contracts. In the situation that we experience significant difficulties in refinancing the bond loan, this may impact our financial results from both a total income and cost perspective.

Currency risks - So far, we have made most of our sales in Europe. Since most of our work is invoiced in Euros we have only limited exposure to currency fluctuations. We try to limit our currency risks as much as possible, and when transactions in other currencies increase will hedge our currency risks. We will continue to actively monitor this aspect, certainly in view of the international operations that are under development.

Insurance - We have taken out adequate liability insurance for production faults, which is particularly important for the automotive industry.

COVID-19

The infection of the global economy by the coronavirus at the beginning of 2020 will reduce growth worldwide. The OECD is already warning for a recession depending on the spread and duration of the COVID-19 pandemic. In addition, the worldwide semiconductor market is cyclical and volatile. Predictions are cautious and just for one or two years; no real long-term outlook is available. In this respect RoodMicrotec has identified the following as the major risks for the company:

- Supply chain: Since RoodMicrotec is dependent on the delivery of parts and services from partners this can have an impact of the ability of the company to deliver its services to the customers. Communication with our suppliers has been intensified to get early warning if the situation changes and to be able to find solutions. At this stage no interruptions have been identified.
- Sales and profitability: If the demand of services from our customers is reducing it will have direct impact on the total income and profitability. We are keeping in close contact with our customers to get their continuous view on the situation so we can act accordingly. Internal control over purchases, as well as load of our different departments, are monitored regularly.
- Government assistance: If there is a reduced demand from our customer resulting in reduced work for RoodMicrotec we are in the position to run "short time work". This is a system in Germany where the government is paying the salaries for these hours that people are not working. This helps in situations like COVID-19.
- Financing: Due to COVID-19 it was not possible to close the refinancing round for the secured bond loan in time for the 30th June 2020. An extension of the term of the bond loan with one year was accepted by the bond holders and we will continue to look for a refinancing solution. The cash position of the company is closely monitored to be able to take actions when necessary.
- Going concern: Please also refer to the going concern paragraph in the 2019 financial statement.

Internal risk management and control system

For our IT–systems, we have opted for an integral tandem solution in one location. To control risks, the mainframes that are part of the tandem are physically separated and situated in special fireproof environments. All sites are connected to the integral tandem system, so as to reduce risks.
The various companies, including the holding company in the Netherlands, the branch offices and the operational units, all work with the same IT-system, which allows for better monitoring of financial results.

Based on what is summarized above, RoodMicrotec feels that its internal risk management and control systems provide a reasonable degree of assurance that the financial reporting does not contain any material inaccuracies and that this system has worked adequately in the year under review. There are no reasons to believe that the system should not work adequately in the current financial year.

Strategic plans

Strategic plans are discussed annually and adjusted where necessary and then translated into budgets that are regularly compared to the actual state of affairs. Monthly reports are prepared that may give rise to corrective actions. The internal quoting process is subjected to a monthly (quality) audit, which investigates whether internal guidelines have been adhered to.

Internal evaluations and external audits

A schedule is drawn up every year for internal evaluations and external audits. This schedule is then acted upon by our employees and external auditors. Both the internal evaluations and the external audits may result in corrective measures; the management letters arising from the external audits are discussed by the Supervisory Board (audit committee).

Audit committee

The audit committee comprises all members of the Supervisory Board. The Supervisory Board meets at least four times per year.

Letter of representation

Every year, the RoodMicrotec Board of Management signs a detailed statement concerning financial reports and external audits.

Actions taken 2019

During 2019, RoodMicrotec has tracked the potential risks in different ways. The sales team prepares new forecasts on a monthly basis which are then presented to the Board of Management. The follow up on this is done with respect to investments, personnel and other operating expenses. The financial results are also review on a monthly basis, the results are prepared by the finance department and then approved by the Board of Management and discussed with the Supervisory Board during the monthly Board Calls.

Market risks and Competition are mainly reviewed in the strategy meeting which was held in November. In this meeting the sales team as well as the department leaders present their view on these topics and the Board of Management then reports these findings to the Supervisory Board. If there are material changes in any of these areas during the year it is reported separately.

The Board of Management had regular meetings with the IT team to review security risks when it comes to the infrastructure. Based on this various investments have been done to improve the security of the systems. The quality department has the responsibility to control the internal processes and these are reviewed once a year with the Board of Management in a management review. If urgent actions are needed additional meetings are held.

CORPORATE SOCIAL RESPONSIBILITY

1. Introduction

Underpinning RoodMicrotec's commitment to responsible corporate citizenship and the pursuit of a sustainable future - economic, social and environmental - the Code of Conduct sets out guiding principles on integrity and ethics in business conduct. They govern RoodMicrotec's business decisions and actions throughout the world and apply equally to corporate actions and to the behavior of individual employees in conducting RoodMicrotec's business. They are subject to applicable laws.

The Code of Conduct is not all-encompassing but formulate minimum requirements of behavior. There is room to specify further local rules of business conduct. The Code of Conduct, which has been adopted by the Board of Management and approved by the Supervisory Board, is reviewed on a regular basis and revised if necessary.

2. General commitment

RoodMicrotec's mission is to be a knowledge and technology driven service provider in the field of modern devices that is able to handle the whole chain for complex requirements as well as individual services. In a world where technology increasingly touches every aspect of our daily lives, RoodMicrotec aspires to be a leading solutions provider in the semiconductor industry in the areas of Automotive, Industrial, Healthcare and HiRel / Aerospace.

RoodMicrotec wishes to be a responsible partner in society, acting with integrity towards its shareholders, customers, employees, suppliers and business partners, competitors, governments and their agencies and others who can be affected by its activities. RoodMicrotec duly observes the applicable rules of the law of the countries in which it operates and regularly reviews its interests and those of affected persons or entities in order to ensure a healthy, long-term relationship with them. RoodMicrotec endeavors to adapt to local situations in order to take the most appropriate approach to possible problems within the bounds of applicable law and responsible conduct. In this respect RoodMicrotec supports the principle of dialogue and cooperation with all parties involved.

2.1. Human rights

With due regard to the Universal Declaration of Human Rights, which states that all parties in society, including corporate persons, have a duty to respect and safeguard human rights, and within the framework of the legitimate role of businesses, RoodMicrotec supports and respects human rights and strives to ensure that its activities do not make it an accessory to infringements of human rights.

2.2. Free market competition

RoodMicrotec supports the principle of free market competition as a basis for conducting its business and observes applicable competition laws and regulations.

2.3. Product safety

RoodMicrotec aims, at all times, to supply safe products and services.

2.4. Privacy

The privacy of personally identifiable information about customers, employees, business partners and other individuals will be protected.

2.5. Environmental protection

Consistent with RoodMicrotec's commitment to sustainable development, it will do all that is reasonable and practicable to minimize any adverse effects of its activities on the environment.

3. Commitment towards customers

RoodMicrotec's goal is to constantly delight each customer with breakthroughs both large and small. To this end, the company seeks to maintain an ongoing dialogue with its customers. RoodMicrotec is committed to listen to and learn from them, so that it is able to design and deliver the solutions they really want and need. RoodMicrotec will always deal with its customers in a fair and forthright manner, maintaining the highest levels of integrity.

4. Commitment towards shareholders

It is of central importance to RoodMicrotec to conduct its operations in accordance with the highest standards of internationally accepted principles of good corporate governance. RoodMicrotec aims to achieve long-term value creation and a satisfactory return on equity, with the intention if possible, of providing a sustainable dividend payment to the shareholders, while at the same time retaining sufficient funds in the company to generate profitable growth. RoodMicrotec attaches great value to its relations with its shareholders and the financial markets and provides timely, regular and reliable information on its activities, structure, financial position and performance.

5. Commitment towards employees

RoodMicrotec values its employees as a key resource. An atmosphere of good employee communication, involvement and responsibility is of central importance, and an employee's personal development and optimum use of talents is encouraged.

5.1. Employee relations

RoodMicrotec shall – within the framework of (local) law and common local practice – inform its employees at least once a year about the general course of the business.

5.2. General statement about Conventions of the ILO

The Conventions of the International Labor Organization are addressed to member states of the International Labor Organization, not to individuals or companies. RoodMicrotec supports the aim of the International Labor Organization to arrive at universally accepted labor standards. RoodMicrotec has adopted internal procedures and guidelines with respect to topics covered by the seven Fundamental Conventions of the International Labor Organization, such as forced labor, the right to organize, collective bargaining, discrimination and child labor.

5.3. Right to organize

RoodMicrotec recognizes and respects the freedom of employees to choose whether or not to establish or to associate with any organization of their own choosing (including labor unions) without RoodMicrotec's prior authorization. RoodMicrotec will not make the employment of a worker subject to the condition that he/she shall not join a union or shall relinquish trade union membership. Furthermore, RoodMicrotec will not cause the dismissal of – or otherwise prejudice – a worker by reason of union membership. RoodMicrotec will not interfere with or finance labor organizations or take other actions with the object of placing such organization under the control of RoodMicrotec.

5.4. Collective bargaining

RoodMicrotec respects – within the framework of law, regulations and prevailing labor relations and employment practices – the right of its employees to be represented by labor unions and other employee organizations. RoodMicrotec will engage in negotiations, either on its own behalf or through employers' associations, with a view to reaching agreement on employment conditions.

5.5. Employment conditions

Employees will be informed about the outcome of the negotiations on employment conditions with employee representatives, if applicable, and RoodMicrotec shall ensure that employment policies regarding pay and/or job grading, working hours, health and safety, are clear and transparent and fully compliant with all applicable national laws.

5.6. Discrimination

Every employee has equal opportunities and will be treated equally in employment and occupation. RoodMicrotec offers equal pay for equal work performed at equal levels at similar locations. No form of harassment or discrimination in respect of employment and occupation will be tolerated, such as discrimination based on race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.

5.7. Health and safety

RoodMicrotec will do all that is reasonable and practicable to protect the health and safety of its employees.

5.8. Equal and fair treatment

Every employee has equal opportunities and will be treated equally in employment and occupation regardless of personal background, race, gender, nationality, age, sexual preference or religious belief. The same applies to the recruitment of employees. RoodMicrotec strives to offer equal pay for equal work performed at equal levels at similar locations. No form of harassment or discrimination will be tolerated.

5.9. Wages and payment

Remuneration must be consistent with the provisions of all applicable wage laws, including t hose relating to minimum wages, overtime hours and legally mandated benefits. Any disciplinary wage deductions must be in conformity with local law. Wages will be paid regularly in check form, via bank account, or in exceptional cases, in cash. Employees will be informed about the composition of their pay and benefits in a detailed and clear manner.

5.10. Working hours

Working weeks are not to exceed the maximum set by local law and should not be more than 60 hours, including overtime, except in emergency or exceptional circumstances to meet short-term business demand. Employees will be allowed at least one day off per seven-day period. Overtime work shall be voluntary, unless agreed in a collective labor agreement or union contact, or, in emergency or exceptional circumstances, to meet short-term business demand.

5.11. Employee development

Both RoodMicrotec and its employees have a commitment to each other to make every effort to ensure high levels of performance and employability. To this end, RoodMicrotec will provide relevant training opportunities to its employees.

5.12. Harassment

RoodMicrotec will not tolerate harsh and inhumane treatment, including sexual harassment, sexual abuse, corporal punishment, bullying, mental or physical coercion or verbal abuse of RoodMicrotec employees, or the threat of any such treatment.

6. Commitment towards suppliers and business partners

RoodMicrotec pursues mutually beneficial relationships with its suppliers and business partners. It seeks to awards business to suppliers and business partners who are committed to act fairly and with integrity towards their stakeholders and who observe the applicable laws of the countries in which they operate.

7. Assets and information

7.1. Use and protection of assets

Each employee is responsible for the proper use, protection and conservation of RoodMicrotec's assets and resources as well as confidential information disclosed to RoodMicrotec by its business partners. RoodMicrotec's assets and resources as well as any opportunities arising by virtue of one's position, are to be used solely to pursue and achieve RoodMicrotec's goals and not for personal benefit.

7.2. Improper disclosure

RoodMicrotec regards information for the purpose of its business as a corporate asset that must be protected against loss, infringement and improper use and disclosure.

RoodMicrotec is committed not to make use of information disclosed to it by a third party if it is suspected that the discloser thereby violates an obligation of confidentiality, unless the information:

- is generally available to the public, other than as a result of disclosure by RoodMicrotec;
- has been independently developed by RoodMicrotec;
- or becomes available to RoodMicrotec either on a non-confidential basis from a third party who is not bound by any confidentiality obligations or by operation of law.

7.3. Insider trading

All employees shall comply with RoodMicrotec's insider trading rules**.** This means that non-public information which might influence the market price of RoodMicrotec shares shall be kept in strict confidence until publicly released by authorized management. Furthermore, employees who have sensitive information which could influence the price of RoodMicrotec shares and related rights, must refrain from directly or indirectly executing transactions in RoodMicrotec shares and related rights. Additionally, employees have to comply with statutory rules and regulations concerning insider trading with respect to securities of other listed companies.

8. Engagement outside RoodMicrotec

RoodMicrotec expects its employees to be fully dedicated to the proper fulfilment of their jobs and to avoid any (potential) conflict of their personal or business activities and financial interests with such commitment. Any engagement outside RoodMicrotec and any financial interest (direct or indirect such as via a family member or acquaintance) which could give rise to a conflict of interest should always be promptly disclosed to the next level of management.

Financial reward received for services rendered to third parties should be made over to the Company. However, if the service in question is rendered largely in the employee's own private time, management may grant the employee permission to retain all or part of the compensation. Compensation received in respect of part-time posts held, professional not direct related to RoodMicrotec, with permission, may be retained. This provision does not apply to compensation for services rendered by a person in his private time, which are not related in any manner to his professional activities for RoodMicrotec.

9. Business integrity

9.1. Bribery; records of transactions

RoodMicrotec insists on honesty, integrity and fairness in all aspects of its business. Bribes in any form are unacceptable; commission payments and personal gifts or favors may only be made or accepted in strict accordance with these directives. RoodMicrotec strives to comply with the highest levels of transparency and accountability throughout the company. Records of transactions should be maintained in an accurate, complete and timely manner in accordance with RoodMicrotec accounting principles. No unrecorded funds or assets should be established or maintained.

9.2. Gifts

The acceptance of gifts or personal favors of commercial value is not acceptable. It is to be made clear to third parties that personal favors can only influence the business relationship negatively and that business decisions are based solely on benefits to the Company and not on considerations of past or future personal gain. In general, a gift (the value of which does not exceed EUR 50) may be accepted if given voluntarily and if there is no reasonable likelihood that it will influence your judgment or actions in performing duties for RoodMicrotec.

When refusing a gift would be discourteous, the gift must be promptly turned over to the Compliance Officer. RoodMicrotec will, in case that it happens, consider donating such gifts to charitable institutions. If you have any doubts in a given situation, please discuss with your management or the Compliance Officer.

Some other guidelines with regard to gifts:

- Personal financial assistance of any kind provided by a supplier or another business contact, other than a financial institution acting in the ordinary course of business, is prohibited.
- Attendance at sport events, restaurants, bars, shows, etc. as the guest of a business contact is permissible only up to two times a year per business contact and only if the hosting company representative is present.
- Travel and overnight accommodation paid for by a (potential) supplier is not allowed.

9.3. Third-party interests

Employees are not allowed to have any direct or indirect financial interest in a supplier or competing company with the exception of a financial interest in a publicly traded company.

9.4. Payments to third parties

Any payment for a company's products or services must be made to the company, not to an individual. All payments must be properly and fairly recorded in appropriate books of account available for inspection. There must be no ‘off the books’ or secret accounts. No payments will be channeled through an Agent. All payments made to an Agent should be intended for the Agent itself. Cash payments are not permitted; all payments should be made to a bank account designated in writing. Payments to a so-called numbered account with a bank are not permitted. RoodMicrotec only makes payment to the provider of goods or services received. A request to divert a payment to an entity or person offshore shall always be rejected

9.5. Commission payments

Commission payments to third parties is too difficult and complex a topic to be addressed exhaustively in specific guidelines. The objective is to make sure that the hard rule laid down in the Code of Conduct on the prohibition of bribes in any form is not circumvented by commission payments. Against this background, the acceptability of a commission payment has to be determined on the basis of a thorough evaluation and assessment, by responsible management, of all relevant information in respect of the proposed commission as well as the third party to whom it is to be paid. In this respect, it is recommended that the Board of Management consults the Supervisory Board. In the event of reasonable doubt as to compliance to local and international laws and regulations and/ or the Code of Conduct, and if this doubt cannot be eliminated in consultation with a legal advisor, the payment should not be made, and the contract should not be concluded. Any commission payment to a third party should be justified by clear and demonstrable services rendered by that party to RoodMicrotec. In the event of the commission payment also covering a substantial part of the activities that are generally included in cost of sales, the level of the commission may vary from country to country. In this respect it is recommended that management compare the selling price of the order with quotations offered by competitors. If the RoodMicrotec price differs substantially from that of the competitors, management has to make sure that the difference is not due to a difference in the amount of commission to be paid. A commission payment equaling a double-digit percentage is not acceptable, except in the event of extreme circumstances and without prejudice to the above.

9.6. Agents, distributors, commissioners

The remuneration of an agent, distributor, commissioner and the like (hereinafter: Agent) may not exceed the normal and reasonable commercial rates for the legitimate service rendered by the Agent. An Agent shall be appointed by virtue of a service contract in writing, which shall always incorporate a reference to the Code of Conduct. All such contracts shall be registered in the country. The background of the Agent must be reviewed thoroughly by the person proposing the Agent in close cooperation with the country management; evidence of such review must be available in the file. An Agent may not be a Government official. A record will be maintained of the names and terms of engagement of all Agents.

9.7. Facilitating payments

Facilitating payments are small payments made in money or in kind, which have to be made, in accordance with publicly known and widely followed local custom and practice, in connection with the performance, by officials in documentation, customs clearance and other matters, of their normal duties. A characteristic of facilitating payments is that the service obtained as the result of such payment represents the legitimate function of the official concerned and does not render undue advantage to the payer in comparison with other companies. Facilitating payments do not fall within the scope of the OECD Convent ion on Combating Bribery of Foreign Public Officials in International Business Transactions. In some countries, however, the legislation to implement the Convention also covers facilitating payments, as a consequence whereof an officer (or, under certain circumstances, the company) who has made such payments abroad, could be prosecuted in his home country. In general, RoodMicrotec is opposed to the making of facilitating payments. The Company will promote measures to eliminate such practices; at all events applicable laws and regulations should be complied with.

9.8. Political payments

RoodMicrotec companies shall not pay advisory fees, make payments or donations, in money or in kind, to political parties, political organizations or individual politicians. Subject to applicable laws and regulations, exceptions to this prohibition may be made – where legally permissible – only if explicitly approved by the Board of Management. In those exceptional cases where payments or donations are made, all requirements regarding public disclosure of such payments or donations shall be complied with in full.

9.9. Money laundering

RoodMicrotec will not participate in "money laundering" by entering any arrangement which is known or there is reason to suspect that it will be used to facilitate any acquisition, retention, use or control of any property or money intended to disguise the proceeds of crime. An employee who suspects a situation of money laundering shall inform the Compliance Officer.

10. Internet, Intranet and e-mail use

No RoodMicrotec employee may use RoodMicrotec’s internal e-mail system, Intranet or Internet in any way that is illegal or might otherwise damage RoodMicrotec’s reputation, such as by:

- deliberately accessing, creating, displaying, transmitting, soliciting, printing, downloading or otherwise disseminating messages, information or material that is or could be construed as threatening, fraudulent, pornographic, discriminatory, sexually oriented, abusive, libelous, derogatory, defamatory, obscene, harassing, disparaging or otherwise unlawful or inappropriate;
- deliberately copying, reproducing, transmitting, distributing, posting or otherwise disseminating or using materials in violation of intellectual property laws or any other applicable law or regulations;
- knowingly "spamming" (the practice of sending e-mail in bulk to (random) e-mail accounts), or using information captured via the Intranet or the Internet for "spamming";
- knowingly sending unsolicited e-mails, such as product promotions etc., to individual consumers unless they opted-in to such communications;
- using it for personal gain (e.g. through on-line gambling or non-RoodMicrotec business activities). No RoodMicrotec employee may use RoodMicrotec’s internal e-mail system, Internet (mail) or Intranet in any way that may interrupt its efficient and effective operation or compromise the security of RoodMicrotec’s or third parties' systems, such as:
- purposely circumventing security measures to gain unauthorized access to systems or data, whether belonging to RoodMicrotec or a third party;
- purposely compromising any computer system, whether belonging to RoodMicrotec or a third party (e.g. through deliberate introduction of a virus or hacking);
- intentionally creating an excess volume of non-business communication that may impair operation of the messaging environment.

RoodMicrotec may take measures to monitor compliance with this Directive and with local laws.

11. Observance of the Code of Conduct

11.1. Sanctions

All RoodMicrotec employees must comply with the Code of Conduct. Violation may lead to disciplinary action, including dismissal, notwithstanding any further civil or criminal action that may be taken.

11.2. Whistle-blower policy

In order to promote the reporting of violations of the Code of Conduct, a whistle-blower policy is in place, enabling employees to submit complaints on an anonymous basis without fear of the complaints leading to disciplinary action.

11.3. Compliance

Compliance with the Code of Conduct is monitored via the Compliance Officer, who regularly reports to the Board of Management and Supervisory Board on the deployment of the Code of Conduct and on ethical issues in general. Reporting on compliance with the Code of Conduct is also an integral part of the Corporate Governance statement issued annually by the Board of Management, Supervisory Board and Corporate Management Team as part of a cascade process leading to certification of the RoodMicrotec's annual accounts. Compliance processes and procedures are reviewed by RoodMicrotec's Supervisory Board.

11.4. Compliance Officer

It is recommended that the chief financial officer (CFO) should be appointed as Compliance Officer. In this capacity he/she reports to the Board of Management and Supervisory Board respectively

Further information and a downloadable version: www.roodmicrotec.com

CORPORATE GOVERNANCE

RoodMicrotec N.V. respects the Dutch corporate governance code (hereinafter referred to as the Code) and considers its application in the light of the company's scale. In this context, RoodMicrotec has decided on a trend-follower position. The system of the Code will be leading in this chapter. The chapter numbers correspond to the chapters of the Code.

RoodMicrotec is very aware of the role it plays in society. Consequently, we judge ourselves by society's standards, thereby indirectly rendering account for our activities to all our stakeholders:

- customers;
- investors;
- employees;
- our immediate social environment.

We also engage with these groups, for example through seminars with customers, investors and the press, regional business relations, and through open and transparent discussions with our employees. RoodMicrotec's General Business Principles and whistle blower policy may be inspected on the company's corporate website.

Shareholders are free to pursue their own interests within the boundaries of reasonableness and fairness, yet mindful of corporate social responsibility. They are in principle not bound by the interests of the company and the business it runs. We are happy to enter into discussions with shareholders if they do not accept the company's explanation of why it has resolved to deviate from any best-practice provision.

Chapter 1. Long-term value creation

1.1.1 – 1.1.4 Long-term value creation strategy

The Board of Management is responsible for the continuity of the company and its affiliated enterprise. The Board of Management focuses on long-term value creation for the company and its affiliated enterprise and considers the stakeholder interests that are relevant in this context. The Supervisory Board monitors the Board of Management in this.

The Board of Management develops a view on long-term value creation by the company and its affiliated enterprise and formulates a strategy in line with this. Depending on market dynamics, it may be necessary to make short-term adjustments to the strategy.

The Board of Management engages with the Supervisory Board early on in formulating the strategy for realizing long-term value creation. The Supervisory Board supervises the manner in which the management board implements the long-term value creation strategy.

In the management report, the Board of Management gives a more detailed explanation of its view on long-term value creation and the strategy for its realization, as well as a description of which contributions were made to long-term value creation in the past financial year.

1.2.1 – 1.2.3 Risk management

RoodMicrotec has adequate internal risk management and control systems in place. The Board of Management is responsible for identifying and managing the risks associated with the company's strategy and activities. The majority of the risk management systems within the company is based on the structure from the ISO9001-2015 standard.

The Board of Management will identify and analyze the risks associated with the strategy and activities of the company and its affiliated enterprise. Based on the risk assessment, the Board of Management will design, implement and maintain adequate internal risk management and control systems.

The Board of Management monitors the operation of the internal risk management and control systems and will carry out a systematic assessment of their design and effectiveness at least once a year. This monitoring covers all material control measures relating to strategic, operational, compliance and reporting risks.

1.3.1 – 1.3.6 Internal audit function

Since RoodMicrotec does not have an internal audit function, the Supervisory Board will assess annually whether adequate alternative measures have been taken and will consider whether it is necessary to establish an internal audit department.

1.4.1 – 1.4.3 Risk management accountability

The Board of Management will render account of the effectiveness of the design and the operation of the internal risk management and control systems. The Board of Management discusses the effectiveness of the design and operation of the internal risk management and control systems with the Supervisory Board. The management report will render account of the accountability as well as the insight made into the risk management.

1.5.1 – 1.5.4 Role of the Supervisory Board

The Supervisory Board supervises the policies carried out by the Board of Management and the general affairs of the company and its affiliated enterprise. In so doing, the Supervisory Board also focuses on the effectiveness of the company's internal risk management and control systems and the integrity and quality of the financial reporting.

RoodMicrotec does not have a separate audit committee due to the size of the company. The functions of the audit committee are handled by the Supervisory Board.

The Supervisory Board will focus on monitoring the Board of Management with regard to:

- relations with, and compliance with recommendations and following up of comments by, the external auditors;
- the funding of the company;
- the application of information and communication technology by the company, including risks relating to cyber security; and
- the company's tax policy.

1.6.1 – 1.6.5 Appointment and assessment of the functioning of the external auditor

The Supervisory Board will submit the nomination for the appointment of the external auditor to the general meeting and supervises the external auditor's functioning.

The Supervisory Board gives the external auditor a general idea of the content of the reports relating to their functioning. The Supervisory Board will formulate the engagement for the external auditors to audit the financial statements. The Board of Management plays a facilitating role in this process. In formulating the terms of engagement, attention must be paid to the scope of the audit, the materiality to be used and remuneration for the audit.

The main conclusions of the Supervisory Board regarding the external auditor's nomination and the outcomes of the external auditor selection process will be communicated to the general meeting. The company should publish a press release in the event of the early termination of the relationship with the external audit firm. The press release should explain the reasons for this early termination.

1.7.1 – 1.7.6 Performance of the external auditor´s work

The Supervisory Board and the external auditor will discuss the audit plan and the findings of the external auditor based on the work the external auditor has undertaken. The Board of Management and the Supervisory Board should maintain regular contact with the external auditor.

The Board of Management will ensure that the external auditor receives all information that is necessary for the performance of his work in a timely fashion. The external auditor will discuss the draft audit plan with the Board of Management before presenting it to the Supervisory Board.

The Supervisory Board will determine whether and, if so, how the external auditor should be involved in the content and publication of financial reports other than the financial statements. The Supervisory Board should meet with the external auditor as often as it considers necessary, but at least once per year, outside the presence of the Board of Management.

The Supervisory Board should be permitted to examine the most important points of discussion arising between the external auditor and the Board of Management based on the draft management letter or the draft audit report. The external auditor should in any event attend the meeting of the Supervisory Board at which the report of the external auditor on the audit of the financial statements is discussed.

Chapter 2. Effective management and supervision

2.1.1 – 2.1.10 Composition and size

The Board of Management and the Supervisory Board are composed such that the requisite expertise, background, competencies and – as regards the supervisory board – independence are present for them to carry out their duties properly. The size of these two bodies reflects these requirements.

The Supervisory Board should prepare a profile, taking account of the nature and the activities of the enterprise affiliated with the company. Information about each supervisory board member will be included in the report of the supervisory board.

RoodMicrotec does not have an executive committee due to the size of the company.

The Supervisory Board should draw up a diversity policy for the composition of the Board of Management and the Supervisory Board.

The composition of the Supervisory Board is such that the members are able to operate independently and critically vis-à-vis one another, the Board of Management, and any particular interests involved. RoodMicrotec is following the definition in chapter 2.1.8 when defining independence of the Supervisory Board members. The Chairman of the Supervisory Board should not be a former member of the Board of Management of the company and should be independent.

The report of the Supervisory Board states that, in the opinion of the Supervisory Board, the independence requirements referred to in best practice provisions have been fulfilled.

2.2.1 – 2.2.8 Appointment, succession and evaluation

The Supervisory Board ensures that a formal and transparent procedure is in place for the appointment and reappointment of Board of Management and Supervisory Board members, as well as a sound plan for the succession of Board of Management and Supervisory Board members, with due regard to the diversity policy. The functioning of the Board of Management and the Supervisory Board as a collective and the functioning of individual members should be evaluated on a regular basis.

A Board of Management member is appointed for a maximum period of four years. A member may be reappointed for a term of not more than four years at a time. A Supervisory Board member is appointed for a period of four years and may then be reappointed once for another four-year period. The Supervisory Board member may then subsequently be reappointed again for a period of two years, which appointment may be extended by at most two years.

A member of the Supervisory Board or the Board of Management should retire early in the event of inadequate functioning, structural incompatibility of interests, and in other instances in which this is deemed necessary by the Supervisory Board.

RoodMicrotec does not have a separate selection and appointment committee due to the size of the company. The functions of the selection and appointment committee are handled by the Supervisory Board.

At least once per year, outside the presence of the Board of Management, the Supervisory Board should evaluate its own functioning and that of the individual Supervisory Board members and should discuss the conclusions that are attached to the evaluation.

At least once per year, outside the presence of the Board of Management, the Supervisory Board should evaluate both the functioning of the Board of Management as a whole and that of the individual Board of Management members and should discuss the conclusions that must be attached to the evaluation, such also in light of the succession of Board of Management members.

2.3.1 – 2.3.11 Organization of the Supervisory Board and reports

The Supervisory Board ensures that it functions effectively. It is the responsibility of the Supervisory Board as an organ and of the individual members of the Supervisory Board to obtain information and forming an independent opinion.

The Supervisory Board does not have any committees, all items are handled by the Supervisory Board. The company has appointed a Company Secretary, who ensures the usage of certain procedures and ensures that the company operates in accordance with legal obligations and the articles of association. The Vice-Chairman of the Supervisory Board, or, if no such person has been designated, one of the other supervisory directors, will replace the Chairman as required. The Vice-Chairman will also serve as contact for individual supervisory directors and managing directors in matters regarding the functioning of the Chairman.

A delegated Supervisory Board member is a Supervisory Board member who has a special task. The delegation may not extend beyond the responsibilities of the Supervisory Board itself and may not include a member of the Board of Management of the company. A Supervisory Board member who temporarily takes on the management of the company, where the Board of Management members are absent or unable to fulfil their duties, should resign from the Supervisory Board.

The Annual Report of the company, including the financial statements, includes a report by the Supervisory Board. In this report, the Supervisory Board renders account of the supervision conducted in the past financial year.

2.4.1 – 2.4.9 Decision making and functioning

The Board of Management and the Supervisory Board ensure that decisions are made in a balanced and effective manner whilst taking account of the interests of stakeholders. The Board of Management ensures that information is provided in a timely and sound manner. The Board of Management and the Supervisory Board keep their knowledge and skills up to date and spend sufficient time on their duties and responsibilities. They should ensure that, in performing their duties, they have the information that is required for effective decision-making.

The Chairman of the Supervisory Board should act on behalf of the Supervisory Board as the main contact for the Board of Management.

The Board of Management and the Supervisory Board should each conduct an annual review for their own organ to identify any aspects with regard to which the Supervisory Board members and Board of Management members require training or education.

2.5.1 – 2.5.5 Culture
The Board of Management is responsible for creating a culture aimed at long-term value creation for the company and its affiliated enterprise. The Supervisory Board should supervise the activities of the Board of Management in this regard. The Board of Management has generated a code of conduct and monitor its effectiveness and compliance with this code, both on the part of itself and of the employees of the company.

2.6.1 – 2.6.4 Misconduct and irregularities
The Board of Management and the Supervisory Board should be alert to indications of actual or suspected misconduct or irregularities. The Board of Management should establish a procedure for reporting actual or suspicion of misconduct or irregularities and take appropriate follow-up action on the basis of these reports.

The Supervisory Board monitors the Board of Management in this.

The external auditor should inform the Chairman of the Supervisory Board without delay if, during the performance of his duties, he discovers or suspect an instance of misconduct or irregularity.

2.7.1 – 2.7.6 Preventing conflicts of interest
Any form of conflict of interest between the company and the members of its Board of Management or Supervisory Board should be prevented. To avoid conflicts of interest, adequate measures should be taken. The Supervisory Board is responsible for the decision-making on dealing with conflicts of interest regarding Board of Management members, Supervisory Board members and majority shareholders in relation to the company.

All transactions in which there are conflicts of interest with Board of Management members or Supervisory Board members should be agreed on terms that are customary in the market. Decisions to enter into transactions in which there are conflicts of interest with Board of Management members or Supervisory Board members that are of material significance to the company and/or to the relevant Board of Management members or Supervisory Board members should require the approval of the Supervisory Board. All transactions between the company and legal or natural persons who hold at least ten percent of the shares in capital of the company should be agreed on terms that are customary in the market.

The company should not grant its Board of Management members and Supervisory Board members any personal loans, guarantees or the like.

2.8.1 – 2.8.3 Takeover situations
In the event of a takeover bid for the company’s shares or for the depositary receipts for the company’s shares, in the event of a private bid for a business unit or a participating interest, where the value of the bid exceeds the threshold referred to in Section 2:107a(1)(c) of the Dutch Civil Code, and/or in the event of other substantial changes in the structure of the organization, both the Board of Management and the Supervisory Board should ensure that the stakeholder interests concerned are carefully weighed and any conflict of interest for Supervisory Board members or Board of Management members is avoided. The Board of Management and the Supervisory Board should be guided in their actions by the interests of the company and its affiliated enterprise.

Chapter 3. Remuneration

3.1.1 – 3.1.3 Remuneration policy – Board of Management
The remuneration policy applicable to Board of Management members should be clear and understandable, should focus on long-term value creation for the company and its affiliated enterprise, and consider the internal pay ratios within the enterprise. The remuneration policy should not encourage Board of Management members to act in their own interest, nor to take risks that are not in keeping with the strategy formulated and the risk appetite that has been established. The Supervisory Board is responsible for formulating the remuneration policy and its implementation.

RoodMicrotec does not have a separate remuneration committee due to the size of the company. The functions of the remuneration committee are handled by the Supervisory Board.

The remuneration of the Board of Management consists of a fixed salary plus a variable part that will be partially paid out in options. There is a balance between a fixed and variable part of the compensation. The calculation is transparent. The granting of options is subject to the achievement of targets set by the Supervisory Board in the context of the company's strategic plan. The achievement of the targets by the Board of Management will be evaluated every twelve months and new targets will be set. The targets for the Board of Management are not described in the annual accounts due to competitive reasons. Company objectives are described in this report.

Regarding ownership and transactions of shares by board members, other than those issued by the company itself, the Supervisory Board has resolved to deviate from the Code. Board of Management members are not permitted to hold direct or indirect interests amounting to more than 5% in other listed companies or companies in the semiconductor industry, unless the Supervisory Board has granted specific permission. Furthermore, Board of Management members must report changes in shareholdings in other listed or semiconductor companies to the Chairman of the Supervisory Board.

3.2.1 – 3.2.3 Determination of Board of Management remuneration
The Supervisory Board should determine the remuneration of the individual members of the Board of Management, within the limits of the remuneration policy adopted by the general meeting.

The employment of the Board of Management members may be terminated by giving six months' notice in writing before the end of each calendar month. In case of termination from RoodMicrotec the Board of Management member is entitled to a severance pay equal to 100% of total annual gross salary.

3.3.1 – 3.3.3 Remuneration – Supervisory Board
The Supervisory Board should submit a clear and understandable proposal for its own appropriate remuneration to the general meeting. The remuneration of Supervisory Board members should promote an adequate performance of their role and should not be dependent on the results of the company.

The remuneration of the Supervisory Board members should reflect the time spent and the responsibilities of their role. Supervisory Board members may not be awarded remuneration in the form of shares and/or rights to shares. Shares held by a Supervisory Board member in the company on whose Supervisory Board they serve should be long-term investments.

In deviation from the Code, it has been determined that no member of the Supervisory Board will be permitted to hold direct or indirect interests of more than 5% in the share capital of other listed companies or companies in the semiconductor industry. Furthermore, supervisory directors must report changes in shareholdings in other listed or semiconductor companies to the Chairman of the Supervisory Board.

RoodMicrotec has not provided any personal loans or guarantees to members of the Supervisory Board.

3.4.1 – 3.4.2 Accountability for implementation of remuneration policy
In the remuneration report, the Supervisory Board should render account of the implementation of the remuneration policy in a transparent manner. The main elements of the agreement of a Board of Management member with the company should be published on the company's corporate website in a transparent overview after the agreement has been concluded, and in any event no later than the date of the notice calling the general meeting where the appointment of the Board of Management member will be proposed.

Chapter 4. The general meeting

4.1.1 – 4.1.10 The general meeting
The general meeting should be able to exert such influence on the policies of the Board of Management and the Supervisory Board of the company that it plays a fully-fledged role in the system of checks and balances in the company. Good corporate governance requires the fully-fledged participation of shareholders in the decision-making in the general meeting.

The Chairman of the general meeting is responsible for ensuring the proper conduct of business at meetings in order to promote a meaningful discussion at the meeting. The agenda of the general meeting should list which items are up for discussion and which items are to be voted on. The following items should be dealt with as separate agenda items:

- material changes to the articles of association;
- proposals relating to the appointment of Board of Management and Supervisory Board members;
- the policy of the company on additions to reserves and on dividends;
- any proposal to pay out dividend;
- resolutions to approve the management conducted by the Board of Management (discharge of Board of Management members from liability);
- resolutions to approve the supervision exercised by the Supervisory Board (discharge of Supervisory Board members from liability);

- each substantial change in the corporate governance structure of the company; and
- the appointment of the external auditor.

If a shareholder has arranged for an item to be put on the agenda, he should explain this at the meeting and, if necessary, answer questions about it. A shareholder should only exercise the right to put items on the agenda after they have consulted with the Board of Management on this. If one or more shareholders intend to request that an item be put on the agenda that may result in a change in the company's strategy, for example as a result of the dismissal of one or several Board of Management or Supervisory Board members, the Board of Management should be given the opportunity to stipulate a reasonable period in which to respond.

Board of Management and Supervisory Board members nominated for appointment should attend the general meeting at which votes will be cast on their nomination.

The external auditor may be questioned by the general meeting in relation to his report on the fairness of the financial statements. The external auditor should for this purpose attend and be entitled to address this meeting.

Within three months after the general meeting the minutes of the meeting are published in concept on the corporate website of the company. The shareholders can react and after three months the minutes will be determined and finalized. The minutes are signed by the Chairman and the Secretary of the shareholders meeting. The final and signed version will be published on the company's corporate website and replace the concept.

4.2.1 – 4.2.6 Provision of information
The Board of Management and the Supervisory Board should ensure that the general meeting is adequately provided with information.

The company has formulated an outline policy on bilateral contacts with the shareholders and has posted this policy on its website. Analyst meetings, analyst presentations, presentations to institutional or other investors and press conferences are announced in advance on the company's corporate website and by means of press releases.

The contacts between the Board of Management on the one hand and the press and financial analysts on the other are handled and structured carefully and with due observance of the applicable laws and regulations.

4.3.1 – 4.3.6 Casting votes
Participation of as many shareholders as possible in the general meeting's decision-making is in the interest of the company's checks and balances. The company should, in so far as possible, give shareholders the opportunity to vote by proxy and to communicate with all other shareholders.

RoodMicrotec does not have any financing preference shares.

4.4.1 – 4.4.8 Issuing depositary receipts for shares Casting votes
Since no depositary receipts for shares have been issued, this part of the Code is not applicable to RoodMicrotec.

Chapter 5. One-tier governance structure

5.1.1 – 5.1.5 One-tier governance structure
Since RoodMicrotec is operating a two-tier structure, this part of the Code is not applicable.

Further information and a downloadable version: www.roodmicrotec.com

MANAGEMENT STATEMENT

This is a statement concerning corporate governance as referred to in article 2a of the Decree on additional requirements for annual reports ('Vaststellingsbesluit nadere voorschriften inhoud jaarverslag') effective as of 1 January 2017 (the 'Decree'). This statement forms part of RoodMicrotec's Annual Report 2019 (included in the chapter on corporate governance), which is available on RoodMicrotec's website: www.roodmicrotec.com.

The information required to be included in this corporate governance statement as described in Articles 3, 3a and 3b of the Decree can be found in the chapters, sections and pages of RoodMicrotec's Annual Report 2019 and are deemed to be included and repeated in this statement:

- the information concerning compliance with the Dutch Corporate Governance Code, as required by article 3 of the Decree, can be found in the chapter on 'Corporate Governance';
- the information concerning RoodMicrotec's main features of the internal risk management and control systems relating to the financial reporting process, as required by article 3a sub a of the Decree, can be found in the chapter on 'Risk and Risk Management';
- the information regarding the functioning of RoodMicrotec's general meeting, and the authority and rights of RoodMicrotec's shareholders and holders of certificates of shares, as required by article 3a sub b of the Decree, can be found in the chapter on 'Corporate Governance';
- the information regarding the composition and functioning of RoodMicrotec's Board of Management, the Supervisory Board and its committees, as required by article 3a sub c of the Decree, can be found in the relevant sections of the chapter on 'Corporate Governance', the 'Report of the Board of Management' and the 'Report of the Supervisory Board';
- the information concerning the inclusion of the information required by the decree article 10 EU Takeover Directive, as required by article 3b of the Decree, can be found in the chapter on 'Corporate Governance'.

True and fair view statement

This statement is an integral part of the Annual Report dated 10th June 2020. This statement is based on article 5:25(c), paragraph 2 sub c of the Financial Supervision Act. Our opinion of financial statement in the 2019 Annual Report is that these give a true and fair view of the assets, liabilities, financial position, cash flows and the result of RoodMicrotec N.V. and the companies included in the consolidation. The 2019 Annual Report gives a true and fair view of the situation on balance sheet date and the developments during the financial year of RoodMicrotec N.V. and the group companies for which the financial information is recognized in its financial statements. The most important risks confronting RoodMicrotec N.V. are described in the Annual Report. The members of the Board of Management have signed the Annual Report and financial statements in fulfilment of their legal obligations arising from article 5:25(c), paragraph 2 sub c of the Financial Supervision Act.

Board of Management	Supervisory Board
O.M. Sallenhag, CEO	V.G. Tee, Chairman
A. Ladega, CFO	M.E.T. Verstraeten

Deventer, 10th June 2020

FINANCIAL STATEMENTS

A. CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Statement of Profit or Loss

(x EUR 1,000)	Notes	2019	2018 Restated*
Net sales	1	12,828	12,840
Other income	2	389	585
Total income		**13,217**	**13,425**
Raw materials and consumables	3	-2,969	-2,545
Personnel expenses	4	-6,819	-6,555
Other expenses, other than depreciation and amortization	5	-1,890	-2,942
EBITDA[1]		1,539	1,383
Depreciation and amortization	6	- 1,416	- 1,018
Result from operating activities (EBIT[2])		123	365
Financial expenses	7	-210	-241
Profit (loss) before taxes		**-87**	**124**
Taxes	8	14	1
Net profit (loss)		**-73**	**125**

Net profit (loss) attributable to:

Equity holders of the parent	-73	125
Non-controlling interests	-	-
Net profit (loss)	**-73**	**125**

Earnings per share

Basic	18	-0.00	0.00
Diluted	18	-0.00	0.00

The numbers following the various items refer to the notes on pages 54 to 92.

1 EBITDA is a non-gaap measure and defined as Earnings Before Interest, Taxes, Depreciation and Amortization. Interest includes other finance costs.

2 EBIT is a non-gaap measure and defined as Earnings Before Interest and Taxes. Interest includes other finance costs.

* Comparative information has been restated as a result of a correction of errors, reference is made to page 60.

Consolidated Statement of Comprehensive Income

(x EUR 1,000)	Notes	2019	2018
Net profit (loss)		-73	125
Items that will not be reclassified to profit or loss			
Remeasurement of defined benefit obligations	21	-583	-117
Remeasurement of plan assets	21	-1,210	-938
Tax implication[1]	12	160	103
Total other comprehensive income		**-1,633**	**-952**
Total comprehensive income		**-1,706**	**-827**
Total comprehensive income attributable to:			
Equity holders of the parent		-1,706	-827
Non-controlling interests		-	-
Total comprehensive income		**-1,706**	**-827**

The numbers following the various items refer to the notes on pages 54 to 92.

[1] The Group has elected to present individual components of OCI before related tax with an aggregate amount presented for tax in the consolidated statement of profit or loss and the consolidated statement of comprehensive income, and has provided disclosures related to tax on each component of OCI in note 12 ‘Deferred tax balances’.

Consolidated Statement of Financial Position

(x EUR 1,000)	Notes	31-12-2019	31-12-2018
Assets			
Property, plant and equipment	9	6,130	5,303
Right-of-use assets	10	956	-
Intangible assets	11	2,318	2,379
Deferred tax balances	12	1,594	1,420
Financial assets	13	-	81
Non-current assets		**10,998**	**9,183**
Inventories	14	464	593
Trade and other receivables	15	1,830	2,092
Cash and cash equivalents	16	1,002	1,738
Current assets		**3,296**	**4,423**
Total assets		**14,294**	**13,606**
Equity and liabilities			
Issued share capital		8,239	8,006
Share premium		20,709	20,497
Revaluation reserve		1,789	1,943
Retained earnings		-29,286	-27,731
Equity, attributable to equity holders of the parent	17	1,451	2,715
Non-controlling interests		2,494	2,494
Total equity	17	**3,945**	**5,209**
Loans and borrowings	20	-	2,426
Lease liabilities	10	672	-
Defined benefit obligation	21	5,020	3,374
Provisions	22	105	107
Non-current liabilities		**5,797**	**5,907**
Loans and borrowings	20	2,474	227
Lease liabilities	10	287	-
Trade and other payables	23	1,791	2,205
Current tax liabilities		-	58
Current liabilities		**4,552**	**2,490**
Total equity and liabilities		**14,294**	**13,606**

The numbers following the various items refer to the notes on pages 54 to 92.

Consolidated Statement of Changes in Equity

(x EUR 1,000)	*Number of shares x1,000*	Issued share capital	Share premium	Revaluation reserve	Retained earnings	Equity attributable to parent	Non-controlling interests	Total Equity
Balance at 1 January 2018	***66,716***	**7,339**	**19,906**	**2,216**	**-27,197**	**2,264**	**2,494**	**4,758**
Issuance of shares	*6,063*	667	591	-	-	1,258	-	**1,258**
Equity share-based payments	-	-	-	-	20	20	-	**20**
Transactions with equity holders of the Company	***72,779***	**8,006**	**20,497**	**2,216**	**-27,177**	**3,542**	**2,494**	**6,036**
Net profit (loss)	-	-	-	-	125	125	-	**125**
Other comprehensive income:								
Remeasurement of defined benefit obligation	-	-	-	-	-85	-85	-	**-85**
Remeasurement of plan assets	-	-	-	-	-938	-938	-	**-938**
Sale of revalued land	-	-	-	-184	255	71	-	**71**
Revaluation of land and buildings	-	-	-	-89	89	-	-	**-**
Total comprehensive income for the year	**-**	**-**	**-**	**-273**	**-554**	**-827**	**-**	**-827**
Balance at 31 December 2018	***72,779***	**8,006**	**20,497**	**1,943**	**-27,731**	**2,715**	**2,494**	**5,209**
Balance at 1 January 2019	***72,779***	**8,006**	**20,497**	**1,943**	**-27,731**	**2,715**	**2,494**	**5,209**
Issuance of shares	*2,117*	233	212	-	-	445	-	**445**
Value of employee options granted	-	-	-	-	-3	-3	-	**-3**
Transactions with equity holders of the Company	***74,896***	**8,239**	**20,709**	**1,943**	**-27,734**	**3,157**	**2,494**	**5,651**
Net profit (loss)	-	-	-	-	-73	-73	-	**-73**
Other comprehensive income:								
Remeasurement of defined benefit obligation	-	-	-	-	-423	-423	-	**-423**
Remeasurement of plan assets	-	-	-	-	-1,210	-1,210	-	**-1,210**
Revaluation of land and buildings	-	-	-	-154	154	-	-	**-**
Total comprehensive income for the year	**-**	**-**	**-**	**-154**	**-1,552**	**-1,706**	**-**	**-1,706**
Balance at 31 December 2019	***74,896***	**8,239**	**20,709**	**1,789**	**-29,286**	**1,451**	**2,494**	**3,945**

Consolidated Cash Flow Statement

(x EUR 1,000)	Notes	2019	2018 Restated*
Net profit (loss) for the year		-73	125
Adjustments for:			
- Depreciation	6	1,205	823
- Amortization	6	211	195
- Financial expenses	7	210	241
- Tax expenses	8	-14	-1
- Movements in net defined benefit obligations and provisions	21	-146	-303
- Share-based payments	19	-3	20
- Accrued interest	7	-	-8
		1,390	1,092
Changes in working capital:			
- Inventories	14	129	-12
- Trade and other receivables	15	262	-121
- Trade and other payables	23	-477	-236
Cash generated from operating activities		**1,304**	**723**
Interest paid	7	-148	-160
Net cash from operating activities		**1,156**	**563**
Cash flows from investing activities			
Acquisition of property, plant and equipment	9	-1,745	-446
Disposal of property, plant and equipment	9	4	326
Investments in intangible assets	11	-150	-130
Divestments in financial assets	13	81	-
Net cash from investing activities		**-1,810**	**-250**
Cash flows from financing activities			
Proceeds from issuance of share capital	17	445	1,258
Payment of lease liabilities	10	-292	-
Repayment of borrowings	20	-235	-450
Net cash flow from financing activities		**-82**	**808**
Net cash flow		**-736**	**1,121**
Cash and cash equivalents less bank overdrafts:			
- at 1 January	16	1,738	617
- at 31 December	16	1,002	1,738
Net cash flow		**-736**	**1,121**

The numbers following the various items refer to the notes on pages 54 to 92.

* Comparative information has been restated as a result of a correction of errors, reference is made to page 60.

B. NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

General information

RoodMicrotec N.V. ('the Company') is a public limited liability company with its registered office in Deventer, the Netherlands and publicly listed on the Euronext Amsterdam Stock Exchange since 1986. The consolidated financial statements of the Company for the year ended 31 December 2019 comprises the Company and its subsidiaries (jointly referred to as 'the Group'). The Group is active in the semiconductor and electronics industry. The Group provides supply chain services, wafer & component testing, qualification & reliability investigations and failure analysis for companies that need application-specific integrated circuits (ASICs).

Since 6 September 2012, the Group includes the following wholly owned subsidiaries:
- RoodMicrotec GmbH (Nördlingen, Germany);
- RoodMicrotec International B.V. (Zwolle, the Netherlands).

The German subsidiary included in the Group's consolidated financial statements made use of the exemption provisions of section 264 (3) HGB in the 2019 financial year.

Summary of significant accounting policies

The principal accounting policies used in the preparation of these consolidated financial statements are set out below.

These policies have been consistently applied to all the years presented, unless stated otherwise.

Basis of preparation

Statement of compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRSs) and with Section 2:362(9) of the Dutch Civil Code.

The consolidated financial statements were authorized for issue by the Board of Management on 10 June 2020.

Basis of measurement

The consolidated financial statements have been prepared on a historical cost basis, unless otherwise indicated.

The consolidated financial statements are presented in euros and all values are rounded to the nearest thousand (EUR '000), except when otherwise indicated.

Use of judgements and estimates

The preparation of the consolidated financial statements in accordance with EU-IFRSs requires management to make judgments, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. The estimates and assumptions are based on historical experience and various factors that are believed to be reasonable under the circumstances, the result of which form the basis for making judgments about the carrying values of the assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and assumptions are reviewed in an on-going basis. Revisions of accounting estimates are recognized prospectively. Information about assumptions and estimation uncertainties at 31 December 2019 that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities in the next financial year is included in the following notes:

- the measurement of defined benefit obligations: actuarial valuations rely on key financial and demographic assumptions including discount rates, expected compensation increases, rate of pension progression and mortality rates (see note 21 'Defined benefit obligations');

- the recognition of deferred tax assets: availability of future taxable profit against which deductible temporary differences and tax losses carried forward can be utilized (see note 12 'Deferred tax balances');

- the impairment test of goodwill: the impairment test of goodwill includes relevant key assumptions such as the WACC (Weighted Average Cost of Capital) and the sales growth rate (see note 11 'Intangible assets').

Measurement of fair values

A number of the Group’s accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities. When measuring the fair value of an asset or a liability, the Group uses market observable data as far as possible. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices);
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Further information about the assumptions made in measuring fair values is disclosed in the applicable notes.

Going concern basis of accounting

When preparing the financial statements, management has made an assessment of the Company’s ability to continue as a going concern.

There are some uncertainties, which by nature are embedded in forecasts and business plans. The forecasted future sales may differ from the actual sales and client orders may be postponed. Also the semiconductor market is known for its volatility and strong correlation with insecurities in the economic climate. This can have significant negative effects on the financial results and cash-flow. However, this is inherent to the business the Group is acting in.

The worldwide outbreak of COVID-19 creates significant levels of uncertainties, which are seen in all industries across the globe, and has a negative effects on sales, operations, profit and cash flows in 2020 and possibly also in 2021. Additionally, the Company’s secured bond loan matures on 30 June 2021 and the possibilities to refinance it are also negatively affected by COVID-19.

Therefore, the going concern of the Company depends on a future positive development of financial results and cash flows, and a successful refinancing or extension of its secured bond loan of which both are (to date) affected by the uncertainties caused by COVID-19. These conditions indicate the existence of a material uncertainty which may cast significant doubt about the Company's ability to continue as a going concern.

The projections for semiconductor market for 2020 are mixed, according to IDC the year on year growth of the semiconductor market will decrease by 6% (with a 54% possibility). For the first quarter of 2020 compared to the same period in 2019 a decline in revenue of 4% is reported. In the short-term management expects there will be lower demand for systems and some impact to component availability, but as recovery sets in, growth will return to the market. The automotive market shows a significant drop in demand in our major market Germany. The industrial market may suffer somewhat from automotive but positive signs are seen from the medical chip market. With lower productivity and revenue management has decided to introduce short-time work and reduce the personnel expenses.

Cash flow forecasts have been updated to identify possible further consequences and uncertainties. These forecasts, which were extended up to and including June 2021, also take into account various scenarios. One of the scenarios is based on a further decline in sales, cost-saving measures, postponement of unnecessary investments and extend the use of short-time work. Further, additional measures, such as further extension of work time reduction, have been identified that can further mitigate liquidity risk in case the outcome should be even more negative. In the event of an even more extreme scenario that sales would decline to 50% in the second half year of 2020 due to a worsening of the COVID-19 outbreak, we need have to look for measures to obtain additional funding in order to avoid liquidity shortage as from the fourth quarter of 2020.

The supply of wafers or services from suppliers with production facilities in COVID-19 infected areas might have an impact on delivery of parts. The impact so far has been limited and the Group has not experienced any lock down of suppliers. Some have indicated longer lead times but all have been able to deliver according to our needs.

The working capital and liquidity are managed closely and mitigating actions have been taken by actions taken in the accounts receivable collecting process at an earlier stage. The availability of funding and credit facilities was impacted negatively by the COVID-19 outbreak. The Board of Management requested the bondholders to extend the maturity date of 30 June 2020 with one year to have sufficient time to find an acceptable refinancing solution. The extension of the bond term with one year was agreed by the bondholders on the 6 May 2020. Based on the aforementioned mitigating actions to manage the availability of liquidity and the initial options explored for refinancing of the Company, the accounting principles applied in the financial statements are based on the assumption that the Company will be able to continue as a going concern.

Changes in accounting policies

In the year under review, where applicable, the Group applied new and amended IFRS standards and IFRIC interpretations relevant to the Group. With the exemption of the explanation below, in 2019 the application of other new and amended standards and interpretations had no material impact on equity and results and the explanatory notes in the consolidated financial statements.

A number of new standards are effective for annual periods beginning after 1 January 2019 and earlier application is permitted; however, the Group has not early adopted the new or amended standards in preparing the consolidated financial statements for the year 2019. These amended standards and interpretations are not expected to have a significant impact on the consolidated financial statements.

The following new standard has been adopted in 2019 and is reflected in the consolidated financial statements:

IFRS 16 'Leases'

From 1 January 2019 leases are recognized as a right-of-use asset and a corresponding lease liability at the date at which the leased asset is available for use. Each lease payment is allocated between the liability and financial expenses. The financial expenses are charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

The Group applied the modified retrospective method, meaning that the 2018 comparative figures in the 2019 consolidated financial statements are not restated.

The lease portfolio of the Group contains rental offices and other leases. The 'other leases' category covers company-leased vehicles, IT equipment and office furniture. Every contract that meets the definition of a lease has been recognized in the consolidated statement of financial position as of 1 January 2019, except for leases with a term of up to 12 months and low-value leases, for which the practical exceptions offered by IFRS 16 have been applied. For contracts entered into after 1 January 2019 or that were amended, the assessment of whether or not it can be considered to be a lease or to contain a lease is made based on an assessment of the economic benefits ensuing from the use of the assets and the control over the use of the asset.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable;
- variable lease payments that are based on an index or a rate;
- the exercise price of a purchase option, if the lessee is reasonably certain to exercise that option; and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the incremental borrowing rate (hereafter: 'IBR'), being the rate that the Group would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions. The IBR used to discount the lease liabilities on 1 January 2019 varies between 0% and 2.1%.

Right-of-use assets are measured at cost, comprising the following:

- the amount of the initial measurement of the lease liability;
- any lease payments made at or before the commencement date, less any lease incentives received;
- any initial direct costs; and
- any restoration costs.

In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated). The assessment is reviewed if a significant event or a significant change in circumstances occurs which affects this assessment and that is within the control of the Group.

In applying IFRS 16 for the first time, the Group has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics;
- reliance on previous assessments on whether leases are onerous;
- not recognize leases whose term ends within 12 months of the date of initial application;
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application; and
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.

Financial impact

Compared with the previous accounting for operating leases under IAS 17 'Leases', the application of the new standard has an impact on the consolidated statement of profit or loss, the consolidated statement of financial position and the consolidated statement of the cash flows. The impact of the adoption of the new standard IFRS 16 'Leases' on these statements per 1 January 2019 is shown in the tables below.

Consolidated statement of financial position as at 31 December 2018

Due to the adoption of the new standard total assets and liabilities increased by the same amount as result of recognizing lease liabilities of EUR 1,092,000 and additional right-of-use assets of EUR 1,092,000.

(x EUR 1,000)	Not including IFRS 16 accounting policy change	IFRS 16 amendments	Including IFRS 16 accounting policy change
ASSETS			
Property, plant and equipment	5,303	–	5,303
Right-of-use assets	–	1,092	1,092
Intangible assets	2,379	–	2,379
Deferred tax assets	1,420	–	1,420
Financial assets	81	–	81
Non-current assets	**9,183**	**1,092**	**10,275**
Inventories	593	–	593
Trade and other receivables	2,092	–	2,092
Cash and cash equivalents	1,738	–	1,738
Current assets	**4,423**	**–**	**4,423**
TOTAL ASSETS	**13,606**	**1,092**	**14,698**
EQUITY AND LIABILITIES			
Issued capital	8,006	–	8,006
Share premium	20,497	–	20,497
Revaluation reserve	1,943	–	1,943
Retained earnings	-27,731	–	-27,731
Equity, attributable to equity holders of the parent	2,715	–	2,715
Non-controlling interests	2,494	–	2,494
Total equity	**5,209**	**–**	**5,209**
Loans and borrowings	2,426	–	2,426
Lease liabilities	–	833	833
Retirement benefit obligation	3,374	–	3,374
Provisions	107	–	107
Non-current liabilities	**5,907**	**833**	**6,740**
Loans and borrowings	227	–	227
Lease liabilities	–	259	259
Trade and other payables	2,205	–	2,205
Current tax liabilities	58	–	58
Current liabilities	**2,490**	**259**	**2,749**
TOTAL EQUITY AND LIABILITIES	**13,606**	**1,092**	**14,698**

The table below provides an explanation for the differences between operating lease commitments disclosed applying IAS 17 at the end of the 2018 annual reporting period and the opening balance of lease liabilities under IFRS 16 at 1 January 2019:

(x EUR 1,000)	1 January 2019
Reported operating lease commitments at 31 December 2018	**1,123**
Adjustment	27
Less: leases not yet commenced	-23
Less: short-term leases	-30
Less: low-value leases	-
Lease commitments at 31 December 2018 under IFRS 16	**1,097**
Less: effects of discounting first application	-5
Add: renewal options	-
Total lease liability	**1,092**

Consolidated statement of profit or loss for 2019

Due to the adoption of IFRS 16 other operational expenses decreased by EUR 292,000 and depreciation and amortization and financial expenses increased by EUR 290,000 respectively EUR 5,000.

(x EUR 1,000)	Not including IFRS 16 accounting policy change	IFRS 16 amendments	Including IFRS 16 accounting policy change
Net sales	12,828	–	12,828
Other income	389	–	389
Total income	**13,217**	–	**13,217**
Raw materials and consumables	-2,969	–	-2,969
Personnel expenses	-6,819	–	-6,819
Other expenses, other than depreciation and amortization	-2,182	292	-1,890
Total operating expenses	**-11,970**	**292**	**-11,678**
EBITDA	1,247	292	1,539
Depreciation and amortization	-1,126	-290	-1,416
Result from operating activities (EBIT)	121	2	123
Financial expenses	-205	-5	-210
Profit (loss) before taxes	**-84**	**-3**	**-87**
Taxes	14	0	14
Net profit (loss)	**-70**	**-3**	**-73**

The adoption of the new standard has an insignificant impact on the basic earnings per share.

Consolidated statement of cash flows for 2019

Due to the adoption of IFRS 16, cash payments for the principal portion of the lease liability are presented as part of cash flow from financing activities. Cash payments for the interest portion of the lease liabilities, short-term leases and low-value leases are presented as part of cash flow from operating activities.

Net cash flow from operating activities increased due to certain lease expenses no longer being presented as operating cash outflows and shifted to cash flows from financing activities. Therefore, net cash flow will remain unchanged.

(x EUR 1,000)	Not including IFRS 16 accounting policy change	IFRS 16 amendments	Including IFRS 16 accounting policy change
Net profit (loss) for the year	-70	-3	-73
Adjustments for:			
- Depreciation	915	290	1,205
- Amortization	211	-	211
- Financial expenses	205	5	210
- Tax expense	-14	-	-14
- Movements in net defined benefit obligations and provisions	-146	-	-146
- Share-based payments	-3	-	-3
	1,098	292	1,390
Changes in working capital:			
- Inventories	129	-	129
- Trade and other receivables	262	-	262
- Trade and other payables	-477	-	-477
Cash generated from operating activities	**1,012**	**292**	**1,304**
Interest paid	-148	-	-148
Net cash from operating activities	**864**	**292**	**1,156**
Cash flows from investing activities			
Acquisitions of property, plant and equipment	-1,745	-	-1,745
Disposal of property, plant and equipment	4	-	4
Investments in intangible assets	-150	-	-150
Net investments in financial assets	81	-	81
Net cash from investing activities	**-1,810**	**-**	**-1,810**
Cash flows from financing activities			
Proceeds from issuance of share capital	445	-	445
Payment of lease liabilities	-	-292	-292
Repayment of borrowings	-235	-	-235
Net cash flow from financing activities	**210**	**-292**	**-82**
Net cash flow	**-736**	**-**	**-736**

Correction of errors

During 2019, the Company discovered the following errors in its 2018 consolidated financial statements.

Government grants presentation
The Company discovered that government grants received for its participation in publicly funded projects were erroneously presented as part of net sales. IAS 20 'Accounting for Government Grants and Disclosure of Government Assistance' mandates the disclosure of grants as Other income. As a consequence, Net sales in 2018 were overstated for an amount of EUR 585,000 while Other income was understated for the same amount. The error has been corrected by restating each of the affected financial statement line items for prior periods.

Presentation of Consolidated Statement of Profit or Loss
The Company discovered that the requirements of IAS 1 'Presentation of financial statements' were not met in terms of presenting the Consolidated Statement of Profit or Loss. The standard requires the presentation of analysis of expenses recognized in profit or loss using a classification based on either their nature or their function within the entity, whichever provides information that is reliable and more relevant. The Company presented an analysis of expenses using a mixture of classification by nature and function, which does not meet the requirements of IAS 1. To correct the error, the presentation of the Consolidated Statement of Profit or Loss has been amended to present expenses by nature. The following line items in the 2018 Consolidated Statement of Profit or Loss were affected:

- Other income has been added as a separate line item (see 'Government grants presentation') for EUR 585,000;
- Cost of sales has been re-presented in line item Raw materials and consumables for EUR 2,545,000;
- The subtotal Gross profit has been removed;
- Names of line items have been changed or clarified, to bring them in line with the requirements of IAS 1.

Presentation of Consolidated Cash Flow statement
The Company discovered that the Consolidated Cash Flow Statement was not prepared in accordance with the requirements of IAS 7 'Statement of Cash Flows'. The standard requires the use of 'profit or loss' as a starting point while we have previously used Earnings before Interest, Taxes, Depreciation and Amortization ('EBITDA'). The error has been corrected by using the 'profit or loss' for the year as a starting point. As a result, the following line items have been added to the 2018 reconciliation of Net profit (loss) for the year with Cash generated from operating activities (x EUR 1,000):

- Net profit (loss) for the year 125

Adjustments for:

- Depreciation 823
- Amortization 195
- Financial expenses 241
- Tax expenses -1

Basis of consolidation

The consolidated financial statements comprise the financial statements of the Group and all subsidiaries that the Company controls, i.e. when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. The existence and effect of potential voting rights are considered when assessing whether the Company controls another entity. Subsidiaries are fully consolidated from the date that control commences until the date that control ceases. All intercompany balances and transactions have been eliminated in the consolidated financial statements. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

Foreign currency translation

Functional and presentation currency
Items included in the consolidated financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The consolidated financial statements are presented in euros, which is the Group's functional and presentation currency.

Transaction and balances
Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translations at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in the consolidated statement of profit or loss.

Property, plant and equipment

Assets in ownership
Property, plant and equipment are stated at cost, except for land and buildings, which are carried at fair value, based on periodic valuations by an external independent valuator, less subsequent depreciation. The cost of self-constructed assets includes the cost of materials, direct labor and an appropriate proportion of directly allocated overheads. Property that is under construction or being developed for future use is classified as property, plant and equipment and stated at cost until construction or development are complete.

Where an item of property, plant and equipment comprises major components having different useful lives, these components are accounted for as separate items of property, plant and equipment.

Increases in the carrying amount arising from revaluation of land and buildings are credited to the revaluation reserve. Decreases that offset previous increases of the same asset are charged against the revaluation reserve; all other decreases are charged to the consolidated statement of profit or loss. Each year the difference between depreciation based on the revaluated carrying amount of the asset charged to the consolidated statement of profit or loss and depreciation based on the asset's original cost is transferred from revaluation reserve to retained earnings. When revalued assets are sold, the amounts included in revaluation reserves are transferred to retained earnings.

Subsequent cost
The Group recognizes in the carrying amount of an item of property, plant and equipment the cost of replacing part of such an item when that cost is incurred if it is probable that the future economic benefits embodied in the item will flow to the Group and the cost of the item can be measured reliably. All other costs are recognized in the consolidated statement of profit or loss as an expense as incurred.

Depreciation
Depreciation on property, plant and equipment is calculated using the straight-line method to allocate the cost of each asset to its residual value over its estimated useful life. Land is not depreciated. The useful economical life of the different categories is set out below:

Category	**Years**
Buildings	20
Machinery and equipment	2-10
Other fixed assets	3-10

The asset's residual value, depreciation method and useful life are reviewed, and adjusted if appropriate, at each balance sheet date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Leases

The lease portfolio of the Group contains rental offices and other leases. The 'other leases' category covers company-leased vehicles, IT equipment and office furniture. When entering into a new contract, the Group assesses whether or not it can be considered to be a lease based on the economic benefits ensuing from the use of the assets and the control over the use of the asset. The Group recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received. Except for leases with a lease term of up to 12 months and low-value leases, for which practical exceptions have been applied.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term unless the projected service life of the asset is shorter. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the Group's incremental borrowing rate. Non-lease components are included in the calculation of the lease liability. Lease liabilities are presented separately in the consolidated statement of financial position. The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The lease liability is revalued upon indexation or modification of the lease contract, upon termination of the lease or upon renewal of the lease. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset.

The Group determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

Cash flows from lease instalment payments for right-of-use assets are part of cash flows from financing activities, while cash flows relating to leases with a term of up to 12 months, low-value leases and non-lease components are recognized under cash flows from operating activities.

Intangible assets

Goodwill
Acquisition of businesses is accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquire and the equity interests issued by the Group in exchange for control of the acquire. Acquisition related costs are recognized in the consolidated statement of profit or loss as incurred. Goodwill is carried at cost less accumulated impairment losses.

Goodwill on acquisitions is tested annually for impairment. Impairment losses on goodwill are not reversed. Goodwill is allocated to the cash-generating units for the purpose of impairment testing. The allocation is made to those cash-generating units that are expected to benefit from the business combination in which the goodwill arose.

Development expenditure
Expenditure on activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding (research activities) is recognized as an expense in the period in which it is incurred. An intangible asset arising from the Group’s development is recognized if, and only if, all of the following conditions are met:

- the asset is uniquely identified, and the costs can be determined separately; and
- the technical feasibility of the asset has been sufficiently demonstrated; and
- it is probable that the asset will generate future economic benefits; and
- the development cost can be measured reliably.

Other intangibles
Other intangible assets are measured at cost less accumulated amortization and impairment losses.

Amortization
Amortization is charged to the consolidated statement of profit or loss on a straight-line basis over the estimated useful lives of intangible assets, unless such lives are indefinite. Development expenditure and other intangibles are amortized from the date when used over the estimated economic useful life, which is expected to be three to five years.

Goodwill is not amortized, and instead tested annually for impairment.

Financial instruments

Financial instruments include the following financial assets: non-current financial assets, trade and other receivables, cash and cash equivalents and include the following financial liabilities: loans and borrowings and trade and other payables. The Group classifies financial assets into those measured at amortized cost and those measured at fair value. The Group classifies financial liabilities into those measured at amortized cost and those measured at fair value through profit or loss.

Financial assets and financial liabilities – recognition and derecognition
The Group initially recognizes financial assets at amortized cost issued on the date when they are originated. All other financial assets and financial liabilities are initially recognized on the trade date when the Group becomes a party to the contractual provisions of the instrument.

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred, or it neither transfers nor retains substantially all of the risks and rewards of ownership and does not retain control over the transferred asset. Any interest in such derecognized financial assets that is created or retained by the Group is recognized as a separate asset or liability.

The Group derecognizes a financial liability when its contractual obligations are discharged or cancelled or expire.

Financial assets and financial liabilities are offset, and the net amount presented in the consolidated statement of financial position if, and only if, the Group has a legal right to offset the amounts and intends either to settle them on a net basis or to realize the asset and settle the liability simultaneously.

Financial assets at amortized cost
These assets are initially recognized at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, they are measured at amortized cost using the effective interest method, less loss allowances.

Financial assets at fair value through profit or loss
A financial asset is classified as at 'fair value through profit or loss' if it is classified as held for trading or is designated as such on initial recognition. Directly attributable transaction costs are recognized in the consolidated statement of profit or loss as incurred. Financial assets at fair value through profit or loss are measured at fair value and changes therein taking into account any loss allowances, interest or dividend income, are recognized in the consolidated statement of profit or loss.

Financial liabilities – measurement
Financial liabilities are initially recognized at fair value less any directly attributable transaction costs. Subsequent to initial recognition, these liabilities are measured at amortized cost using the effective interest method.

Impairment of financial assets
Loss allowances for financial assets are based on assumptions about risk of default and expected loss rates. The Group uses judgement in making these assumptions and selecting the inputs to the impairment calculation, based on the Group's past history, existing market conditions as well as forward looking estimates at the end of each reporting period. Financial assets are measured through a loss allowance at an amount equal to:

- the 12-month expected credit losses (expected credit losses that result from those default events on the financial instrument that are possible within 12 months after the reporting date); or
- full lifetime expected credit losses (expected credit losses that result from all possible default events over the life of the financial instrument).

A loss allowance for full lifetime expected credit losses is used for a financial instrument if the credit risk of that financial instrument has increased significantly since initial recognition, as well as to trade receivables.

For all other financial instruments, expected credit losses are measured at an amount equal to the 12-month expected credit losses.

The loss allowance for financial instruments is measured at an amount equal to lifetime expected losses if the credit risk of a financial instrument has increased significantly since initial recognition, unless the credit risk of the financial instrument is low at the reporting date in which case it can be assumed that credit risk on the financial instrument has not increased significantly since initial recognition. The credit risk is considered low if there is a low risk of default, the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations. It is rebuttable presumed the credit risk has increased significantly when contractual payments are more than 30 days past due. If a significant increase in credit risk that had taken place since initial recognition and has reversed by a subsequent reporting period (cumulatively credit risk is not significantly higher than at initial recognition) then the expected credit losses on the financial instrument revert to being measured based on an amount equal to the 12-month expected credit losses.

The Group applies the simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables. The loss allowance is determined based on historical data of credit losses and updated periodically to incorporate forward looking information.

At each reporting date, the Group assesses whether financial assets carried at amortized cost are credit impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable data:

- significant financial difficulty of the debtor;
- a breach of contract, such as a default or being more than 90 days past due;
- it is probable that the debtor will enter bankruptcy or other financial reorganization.

Trade and other receivables

Trade and other receivables are initially recognized at fair value and subsequently measured at amortized cost using the effective interest method, less allowances for credit losses. Under the application of IFRS 9 'Financial instruments' a provision is taken for any expected credit losses on trade receivables. This provision is determined on the basis of historical credit losses on trade receivables adjusted for economic developments and future expectations. The amount of the provision for the doubtful debts is recognized in the consolidated statement of profit or loss under other operating expenses.

Inventories

Inventories
Inventories are stated at the lower of cost and net realizable value. Costs comprise direct materials and, where applicable, direct labor costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated using the weighted average method. Net realizable value represents the estimated selling price less all estimated costs for in marketing, sale and distribution.

Work in progress
Work in progress concerning services rendered on work not yet completed is stated at cost plus a mark-up for directly attributable overheads. Costs include all expenditures related directly to specific projects and an allocation of fixed and variable overheads incurred in the Group's contract activities based on normal operating capacity.

Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown separately in the consolidated statement of financial position.

Impairment of non-financial assets

The carrying amounts of non-financial assets are reviewed at each balance sheet date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amount is calculated.

Goodwill is tested annually for impairment. For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs. Goodwill arising from a business combination is allocated to CGU or groups of CGUs that are expected to benefit from the synergies of the combination.

The recoverable amount is the higher of an asset's fair value less cost to sell and its value in use. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU

An impairment loss is recognized whenever the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. Impairment losses are recognized in the consolidated statement of profit or loss.

Share capital

Shares

Shares are classified as equity. The Company's Articles of Association do not distinguish ordinary and preference shares. The Company has no preference shares authorized or issued. All shares authorized and issued should therefore be considered 'ordinary' shares.

Share premium

The share premium is the consideration paid for shares in excess of the nominal value.

Dividends

Dividends are recognized as a liability in the period in which they are declared by the shareholders.

Non-controlling interests

Non-controlling interests consist of perpetual bonds and is classified as equity at its nominal value.

Employee benefits

Defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefits that employees have earned in current and prior periods; discounting that amount and deducting the fair value of any plan assets. The discount rate is the yield at balance sheet date on high-quality corporate or government bonds that have maturity dates approximating the terms of the Group's obligations. The calculation is performed by qualified actuaries using the projected unit credit method.

Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income. The Group determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognized in the consolidated statement of profit or loss.

Obligations for contributions to defined contribution plans are expensed as the related service is provided. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

Share-based payment transactions

The share option program allows employees of the Group to acquire shares in the capital of the Company. The fair value of options is recognized as an employee expense with a corresponding increase in equity. The fair value is measured at grant date and spread over the period during which the employees become unconditionally entitled to the options. At each balance sheet date, the Group revises its estimates of the number of options that are expected to vest. It recognizes the impact of the revision to original estimates, if any, in the consolidated statement of profit or loss, with corresponding adjustments to equity.

The proceeds received net of any directly attributable transaction costs are credited to share capital (nominal value) and share premium when the options are exercised. The share options are valued using the Black & Scholes Model.

Profit-sharing and bonus plans

The Group recognizes a liability and an expense for bonuses and profit-sharing based on a formula that takes into consideration the profit attributable to the Company's equity holders after certain adjustments. The Group recognizes a provision where contractually obliged or where there is a past practice that has created a constructive obligation.

Provisions

A provision is recognized in the consolidated statement of financial position when the Group has a legal or constructive obligation arising from a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect is material and a reliable estimate can be made of the amount of the obligation, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability.

Trade and other payables

Trade and other payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

Revenue from contracts with customers

The Group's revenue from contracts with customers is measured at the fair value of the consideration received or receivable and represents the amounts for services provided and serviced products delivered in the course of business during the current year, net of all related discounts and sales taxes. The Group provides quality services and delivers serviced products (chips and packaged devices) in the semiconductor industry through their business units Test Operations, Supply Chain Management and Qualification & Failure Analysis. The Group's customers consist of Fabless Companies, OEMs and other companies in the automotive, telecommunications, healthcare, industrial and electronic sectors. In addition, the Group is participating in publicly funded projects.

The characteristics of revenue recognition in Test Operations is generally based on the services performed to the customers for the actual number of pieces tested and based on fixed prices per tested piece.

The characteristics of the projects in Supply Chain Management include a life cycle of 1-3 months to several years, whereby the development phase, if applicable, takes between 1 to 2 years, followed by the series delivery. Prices in the development phase are generally based on services performed based on actual hours spent. Prices for the series delivery are generally based on fixed prices per piece.

The characteristics of revenue recognition in Qualification & Failure Analysis is generally based on the services performed to the customers based on the actual hours spent of the personnel and machines involved.

Revenue is recognized when a performance obligation is satisfied, in accordance with the terms of the contractual agreement. Typically, performance obligations are satisfied over time as services are rendered. Revenue recognized over time is based on the proportion of level of service performed.

The payment terms are based on general terms and conditions. The Group has neither specific obligations for returns or refunds, nor specific warranties nor other related obligations.

Performance obligations and timing of revenue recognition

The Group determines at contract inception whether each performance obligation will be satisfied (that is, control will be transferred) over time or at a point in time. The Group satisfies a performance obligation and recognizes revenue over time, when the asset has no alternative use to the Group and the Group is entitled to an enforceable right to payment for performance-to-date. The asset for each project is produced to a customer's specification and the asset can only be used by the specific customer.

If this condition is not satisfied, the Group recognizes revenue at a point in time. For each performance obligation that is satisfied at a point in time, the revenue is recognized when the performance obligation is met, and control is transferred to the customer. For each performance obligation that is satisfied over time, revenue is recognized by measuring progress towards completion of that performance obligation. The project revenue and costs are recognized as net revenue and costs in the consolidated statement of profit or loss in proportion to the services provided as at the balance sheet date, based on the percentage stage of completion of the contracts, calculated on the basis of costs incurred. Fulfilment of the performance obligations related to goods sold is measured using the commercial shipment terms as an indicator for the transfer of control.

If profit on the project can be determined reliably, revenue is recognized in proportion to the services at reporting date. Otherwise, revenue is recognized based on the cost incurred.

Where the total project costs exceed the project revenue, the loss is recognized in cost of sales in the consolidated statement of profit or loss. The provision for this loss is included in the work in progress.

The Group applies the following practical exemptions in IFRS 15 'Revenue from contracts with customers':
- not to account for significant financing components where the time difference between receiving consideration and transferring control of products or services to its customer is one year or less; and
- expense the incremental costs of obtaining a contract when the amortization period of the asset otherwise recognized is one year or less.

Revenue is recognized when the performance obligation has been met.

Government grants

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Raw materials and consumables

Raw materials and consumables represent the cost of raw materials and consumables that are attributable to the services provided or products delivered.

Expenses

Operating lease payments
Lease payments are primarily recognized in line with note 10 'Right-of-use assets'. Lease payments that do not qualify as leases under the application of IFRS 16 'Leases' are charged to the consolidated statement of profit or loss on a straight-line basis over the period of the lease.

Net financing costs
Net financing costs comprise interest payable on loans and borrowings calculated using the effective interest rate method. The interest expenses component of finance lease payments is recognized in the consolidated statement of profit or loss using the effective interest rate method. In so far as applicable, the interest component of lease liabilities is also recognized under financing costs.

Income taxes

Income taxes on the profit or loss for the year comprises current and deferred taxes. Income tax is recognized in the consolidated statement of profit or loss except to the extent that it relates to items recognized directly in equity, in which case it is recognized in equity. Current tax comprises the expected tax payable or receivable on the taxable income or loss for the year and any adjustment to the tax payable or receivable in respect of previous years. The amount of current tax payable or receivable is the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes, if any. It is measured using tax rates enacted or substantively enacted at the reporting date. Current tax also includes any tax arising from dividends.

Deferred taxes are stated in full, using the liability method, on temporary differences arising between the tax base of assets and liabilities and their carrying amounts in the consolidated financial statements. However, the deferred tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects either accounting or taxable profit or loss. Deferred taxes are determined using tax rates (and laws) that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the related deferred tax asset is realized or the deferred tax liability is settled and reflects uncertainty related to income taxes, if any.

Deferred tax assets are recognized for unused tax losses, unused tax credits and deductible temporary differences to the extent that it is probable that future taxable profits will be available against which they can be used. Future taxable profits are determined based on the reversal of relevant taxable temporary differences. If the amount of taxable temporary differences is insufficient to recognize a deferred tax asset in full, then future taxable profits, adjusted for reversals of existing temporary differences, are considered, based on the business plans for individual subsidiaries in the Group. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized; such reductions are reversed when the probability of future taxable profits improves.

Unrecognized deferred tax assets are reassessed at each reporting date and recognized to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized. Deferred taxes are calculated on temporary differences arising from investments in subsidiaries, except where the timing of the reversal of temporary differences is controlled by the Group and it is probable that temporary differences will not be reversed in the foreseeable future. Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred taxes relate to the same tax authority.

Cash flow statement

The cash flow statement is prepared using the indirect method. It distinguishes between operating, investing and financing activities. Payments and receipts of corporate taxes and interest are included as cash flow from operating activities. Cash flow arising from divestment of financial interests in group companies and subsidiaries is included as cash flow from investing activities, taking into account the available cash in these interests. If applicable dividends paid are part of the cash flow from financing activities.

Financial risk management and sensitivity analysis

The Group's activities are exposed to a variety of financial risks: market risks (including currency risk and interest rate risk), credit risks and liquidity risks. The Group's overall risk management program focuses on the unpredictability of markets (debtor management) and tries to minimize potential adverse effects on the Group's financial performance. The Group makes limited use of derivative financial instruments to hedge certain risk exposures.

Credit risk
The activities of Group entail various credit risks. The maximum credit risk is equal to the carrying amount of the trade receivables and other receivables. Trade receivables are generally on terms of 30 days. With some debtors other payment terms are agreed upon varying from 14 to 60 days. The payment terms are based on general terms and conditions. The Group has neither specific obligations for returns or refunds, nor specific warranties nor other related obligations. Management has set up credit control policies to reduce the credit risk. The average credit rating of the Group's customers is comparable to the industry. There is no significant concentration of credit risks within the Group, as the Group has a large number of customers. One customer comprises 10% or more of net sales.

Allowances for impairment of trade and other receivables
The Group establishes allowances for impairment of trade and other receivables using an expected credit losses model. The loss allowance is determined based on historical data of credit losses and updated periodically to incorporate forward looking information. The Group has contact with clients on a regular basis and monitors financial performance when needed. Due to the low levels of write-offs of trade and other receivables in the past, the Group decided to apply a single loss-rate. The trade and other receivables are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others, the failure of a debtor to engage in a repayment plan with the Group. The amount of the allowance is equal to the difference between the carrying amount of the receivable and the present value of estimated future cash flows.

Foreign currency risks and sensitivity analysis
Within the Group's customer portfolio, the Group is exposed to currency risk. The foreign exchange risk is mitigated by exchange rate clauses in most of the Group's contracts and sales. The Group has sales in US dollar currency however this has minimal effect. The table below summarizes the sales in different currencies:

(x EUR 1,000)	2019	2018
Euro denominated net sales	12,228	11,544
US dollar denominated net sales	600	1,296
Total net sales	**12,828**	**12,840**

No detailed sensitivity analysis has been included, as the exposure is immaterial.

Borrowing risks and sensitivity analysis
Generally, the Group raises long-term borrowings at fixed rates. In 2014, the Group issued a bond loan of EUR 2.5 million with mortgage cover and maturity date 30 June 2020. The annual fixed coupon rate is 6% and the effective return rate is 8.11%. The interest (coupon rate) is fixed until 30 June 2020. On 6 May 2020, the Extraordinary Meeting of Bondholders approved the proposal by the Board of Management to extend the term of the bond loan with one year and therefore the maturity date is now 30 June 2021. The annual fixed coupon rate remains unchanged at 6% fixed until 30 June 2021.

The Group does not have any variable interest rate borrowings outstanding as at 31 December 2019 and therefore is not subjected to risks arising from market interest rate fluctuations.

In March 2016, investors provided a loan of EUR 750,000 with mortgage cover of EUR 500,000 and EUR 250,000 right of pledge on machinery and equipment. The total duration of the loan is 48 months with yearly repayments in March each year. Final installment of 30% was paid in March 2019. The fixed annual payable interest was 5% on the outstanding gross amount and the effective return rate was 8.86%. Therefore, borrowing risks for this instrument are low.

Liquidity risk
Prudent liquidity risk management implies maintaining sufficient cash and the availability of funding through an adequate credit facility. Management monitors rolling forecasts of the Group's liquidity reserve and cash and cash equivalents. Furthermore, liquidity planning is one of the major elements in the Group's budget cycle. Due to the Group's working capital ratio and market conditions, management has tight monitoring procedures in place regarding direct cash flows. Both the cash position and sales forecasts are frequently reviewed. Managing the working capital position is important in managing the Group's liquidity risk.

As per 31 December 2019 the working capital position is as follows:

(x EUR 1,000)	31-12-2019
Inventories	464
Trade receivables	1,642
Other receivables	188
Trade payables	-706
Other payables	-1,085
Cash at bank	1,002
Working-capital	**1,505**

Except for inventory, all items in the table above are also relevant for the liquidity risk analysis.

Current liabilities with regard to payments of financing and interest costs are relatively small. The risk of strong fluctuating interest rates is limited and the Group has no interest swaps outstanding. The main part of the interest is related to the outstanding bond loan. This interest rate is fixed until 30 June 2020.

The following are the remaining contractual maturities of financial liabilities at the reporting date. The amounts are gross and undiscounted and include contractual interest payments and exclude the impact of netting agreements.

		Contractual cash flows				
(x EUR 1,000)	Carrying amount	Total	1 year	1 to 2 years	2 to 5 years	More than 5 years
Secured bond loan	2,474	-2,575	-2,575	-	-	-
Lease liabilities	960	-968	-291	-475	-202	-
Trade payables	706	-706	-706	-	-	-
Liquidity position	**4,140**	**-4,249**	**-3,572**	**-475**	**-202**	**-**

The secured bond loan matures on 30 June 2020. For further details, reference is made to note 26 'Events after balance sheet date'.

Market interest rates and pensions
Changes in discount rates used in pension calculations are related to the changes in capital market interests. Changes in discount rates will result in actuarial gains or losses. According to IAS 19R 'Employee benefits', these actuarial gains and losses are immediately recognized in other comprehensive income. Disregarding this mitigation, a 0.5% decrease in the market interest rate at year-end would increase the pension obligation by approximately EUR 369,000. A 0.5% increase of the market interest rate at year-end would lead to a decrease of the pension obligation by approximately EUR 337,000.

Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimum capital structure to reduce the cost of capital. In order to maintain or adjust the capital structure, the Group may, if and when applicable, adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt. Consistent with other parties in the industry, the Group monitors capital based on the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings (including 'current and non-current borrowings' as shown in the consolidated statement of financial position) less cash and cash equivalents. Total capital is calculated as 'equity' as shown in the consolidated statement of financial position plus net debt. Below the gearing ratio of 2019 is stated compared to 2018.

(x EUR 1,000)	31-12-2019	31-12-2018
Total interest-bearing borrowings	2,474	2,653
Less cash and cash equivalents	-1,002	-1,738
Net debt	**1,472**	**915**
Total equity	3,945	5,209
Total capital	**5,417**	**6,124**
Gearing ratio (net debt/capital x 100%)	**27%**	**15%**

Fair values

For cash and cash equivalents, trade and other receivables, trade and other payables and current borrowings, the fair value of the financial instruments approximates the carrying value. Therefore, the fair value disclosure in tabular format for these items has not been presented.

1. Net sales

The Group does not have separate segments as referred to in IFRS 8 'Operating segments'. IFRS 8 requires the consolidated financial statements to present segment information that is in accordance with the internal information used by management of the Group (chief operating decision maker) to assess performance and allocate resources.

The Group focuses on a single operating segment considering the nature of its services and the type of class of customer for these services. This operating segment consist of three business units, namely: Test Operations, Supply Chain Management and Qualification & Failure Analysis; to help the development of business level strategies. Management uses the consolidated results of operations to come up with informed business decisions.

Consequently, the disclosures for segment information are limited to net sales and non-current assets per country. In accordance to management reporting, net sales for the business units Test Operations, Supply Chain Management and Qualification & Failure Analysis are also disclosed.

Non-current assets amounting to EUR 5,000 (2018: EUR 6,000) is located in the Netherlands and the bulk of the non-current assets is located in Germany.

Net sales by business unit

(x EUR 1,000)	2019	2018
Test Operations	6,421	5,900
Supply Chain Management (SCM)	3,118	3,163
Qualification & Failure & Analysis	3,289	3,777
Total	**12,828**	**12,840**

Net sales by geographic region

(x EUR 1,000)	2019	2018
Germany	5,912	6,036
Rest of Europe	6,108	5,667
Asia	649	831
Rest of the world	159	306
Total	**12,828**	**12,840**

The net sales in the Netherlands amounts to nil in both 2019 and 2018.

The basis for attributing net sales from external customers to individual geographical regions, is the country where the customer is based. In 2019, one individual customer meets the 10% criterion with a total reported revenue of EUR 1,758,000.

2. Other income

(x EUR 1,000)	2019	2018
Other income	389	585
Total	**389**	**585**

The Group is making use of government grants due to its participation in four publicly funded projects. In 2019, approximately EUR 389,000 (2018: EUR 585,000) has been granted for this participation. All four projects are funded by the German Federal Ministry of Education and Research (BMBF), while the two largest projects also received funding from the ECSEL Joint Undertaking, which is supported by the European Union's Horizon 2020 research and innovation program.

The projects are well aligned with the Group's strategy and focus on:

- reliability of smart medical devices;
- packaging and testing of high power GaN transistors;
- novel testing and reliability methods for wafer-level chip scale packages;
- test strategies for photonic and optoelectronic devices.

3. Raw materials and consumables

(x EUR 1,000)	2019	2018
Cost of raw materials and consumables	2,969	2,545
Total	**2,969**	**2,545**

4. Personnel expenses

(x EUR 1,000)	2019	2018
Salaries	5,696	5,456
Social securities	1,026	971
Share options	-3	20
Pension charges	100	108
Total	**6,819**	**6,555**

In 2019, capitalized internal hours are deducted from salaries amounting to EUR 72,000 (2018: EUR 82,000).

The professional categories of the employees are as follows:

Category (in FTE)	2019	2018
Business units	68	65
Management and administrative	15	15
Sales and support	13	14
Total average number of employees	**96**	**94**

The average number of persons employed by the Group in 2019 on a full-time basis was 96 (2018: 94). In 2019 an average of 3 persons were employed in the Netherlands on a full-time basis (2018: 3).

At year-end 2019, the Group employed 98 persons (2018: 93).

5. Other expenses, other than depreciation and amortization

(x EUR 1,000)	2019	2018
Housing and equipment costs	1,348	1,553
Selling and administrative expenses	542	1,389
Total	**1,890**	**2,942**

The selling and administrative expenses include a release of a provision of EUR 124,000 which was formed in 2018 for legal proceedings against a debtor. In 2019 the Company received a verdict from the court regarding the legal proceedings.

The selling and administrative expenses include a release of a provision of EUR 175,000 which was formed in 2018 for withholding VAT expenses. In 2019 the tax audit in the Netherlands was completed.

Auditor fees
The total costs for the services rendered by KPMG Accountants N.V. and Baker Tilly N.V., respectively, consist of:

	2019			2018		
(x EUR 1,000)	KPMG Accountants N.V.	Other KPMG network	Total	Baker Tilly N.V.	Other Baker Tilly network	Total
Audit of the financial statements	103	61	164	42	48	90
Other assurance services	-	-	-	-	-	-
Tax-related advisory services	-	-	-	-	-	-
Other non-audit services	-	-	-	-	-	-
Total	**103**	**61**	**164**	**42**	**48**	**90**

KPMG Accountants N.V. provided in 2019 no other services in addition to the statutory audit of the 2019 consolidated and Company financial statements. The fees mentioned in the table for the audit of the financial statements 2019 (2018) relate to the total fees for the audit of the financial statements 2019 (2018), irrespective of whether the activities have been performed during the financial year 2019 (2018).

6. Depreciation and amortization

(x EUR 1,000)	2019	2018
Intangible assets	211	195
Land and buildings	124	136
Machinery and equipment	625	509
Depreciation for right-of-use assets	290	-
Other property, plant and equipment	166	178
Total	**1,416**	**1,018**

7. Financial expenses

(x EUR 1,000)	2019	2018
Interest	210	233
Interest accrued	-	8
Total	**210**	**241**

(x EUR 1,000)	2019	2018
Interest expenses:		
- bond loan	198	195
- other loans	11	44
- on leases	5	-
- other financial expenses (income)	-4	2
Total	**210**	**241**

(x EUR 1,000)	2019	2018
Interest paid:		
- bond loan	150	150
- other loans	3	8
- on leases	-	-
- other financial expenses (income)	-5	2
Total	**148**	**160**

The interest expenses include amortization costs amounting to EUR 61,000 (2018: EUR 72,000), which relate to discount and bond issuance cost of the bond loan, the secured loan and on leases.

8. Taxes

(x EUR 1,000)	2019	2018
Recognition of deferred tax assets carried forward	-28	5
Changes in deferred tax liabilities	42	-4
Taxes in Consolidated Statement of Profit or Loss	**14**	**1**

No Income taxes were paid in 2019 (2018: nil).

As the major part of the activities is in Germany, the Group uses the German domestic tax rates of 27.5% (2018: 27.5%) in the reconciliation of the effective tax rate below:

(x EUR 1,000)	2019	2018
Profit (loss) before taxes	-87	124
Taxes based on the weighted average applicable rate	24	-40
Changes in unrecognized tax losses	-52	45
Changes in deferred tax liabilities	42	-4
Taxes in Consolidated Statement of Profit or Loss	**14**	**1**

9. Property, plant and equipment

(x EUR 1,000)	Land and buildings at fair value	Machinery and equipment	Others	Total
1 January 2018				
Cost or fair value	3,345	26,831	3,965	34,141
Accumulated depreciation	-	-24,406	-3,712	-28,118
Carrying amount 1 January 2018	**3,345**	**2,425**	**253**	**6,023**
Reclassification to Intangible Assets – Cost	-	-228	-31	-259
Reclassification to Intangible Assets – Accumulated Depreciation	-	-	243	243
Additions	9	158	279	446
Disposals – Cost	-326	-688	-82	-1,096
Disposals – Accumulated Depreciation	-	688	82	770
Depreciation charge	-136	-509	-179	-824
Carrying amount 31 December 2018	**2,892**	**1,846**	**565**	**5,303**
31 December 2018				
Cost or fair value	3,028	26,073	4,131	33,232
Accumulated depreciation	-136	-24,227	-3,566	-27,929
Carrying amount 31 December 2018	**2,892**	**1,846**	**565**	**5,303**
Useful economic life in years	20	2-10	3-10	

(x EUR 1,000)	Land and buildings at fair value	Machinery and equipment	Others	Total
1 January 2019				
Cost or fair value	3,028	26,073	4,131	33,232
Accumulated depreciation	-136	-24,227	-3,566	-27,929
Carrying amount 1 January 2019	**2,892**	**1,846**	**565**	**5,303**
Additions	-	1,635	110	1,745
Disposals – Cost[1]	-4	-6,385	-1,515	-7,904
Disposals – Accumulated Depreciation[1]	-	6,385	1,515	7,900
Depreciation charge	-124	-625	-165	-914
Carrying amount 31 December 2019	**2,764**	**2,856**	**510**	**6,130**
31 December 2019				
Cost or fair value	3,024	21,323	2,726	27,073
Accumulated depreciation	-260	-18,467	-2,216	-20,943
Carrying amount 31 December 2019	**2,764**	**2,856**	**510**	**6,130**
Useful economic life in years	20	2-10	3-10	

[1] Assets registers have been fully reviewed and cleaned in 2019, without impact or changes on the carrying amounts or depreciation charge or otherwise in the consolidated financial statements.

Land and buildings at historical cost

(x EUR 1,000)	2019	2018
Initial costs land and buildings	4,643	4,715
Disposals	-498	-72
Accumulated depreciation	-3,848	-4,326
Net book amount at depreciated historical cost	**297**	**317**

Note that the prior-year figures of land and buildings and historical figures have been adjusted as a result of (immaterial) prior-year adjustments. The changes do not affect the consolidated statement of financial position and the consolidated statement of profit or loss as this item is related to disclosure only.

In 2018, the Group disposed certain land and building recognized at fair value. The disposed assets with carrying value amounting to EUR 326,200 at the time of sale were sold at no gain or loss for the Group.

The valuation report dated 4 December 2017, prepared by Diplom-Betriebswirt Friedrich Kiefer, state the fair value of the land and buildings is EUR 3,345,000 (previous valuation report in 2014: EUR 3,110,000).

The valuation of land and buildings is based on a market valuation of land and rental value in combination with the technical life of the building. The land has been valued against EUR 50 per square meter.

According to IFRS 13 'Fair value measurement' hierarchy, the revalued land and buildings belongs to Level 3 – Significant Unobservable Inputs. The most significant input, all of which are unobservable is the estimated rental value and the value of land, which has been valued at EUR 50 per square meter.

Valuation of land

	Total square meters	EUR/square meter	Total value in EUR
Built land	14,780	50	739,000
Unbuilt land	-	50	-
Total land	14,780		739,000

Valuation of building
Valuation of the building is based on rental-market prices for office and production space per square meter. The range of market prices per square meter is between 2.00 and 6.5 EUR /square meter.

The total square meters of the building, which has been used to determine the rental value is 5,714 square meters. The total annual rental value amounts to EUR 294,624 (this includes the value of the built land).

A multiplier is used (according to valuation techniques in the real estate market) to calculate the value which amounts to 10.46. The multiplier 10.46 times the annual rental value of EUR 294,624 results in the value of building, including built land, amounting to EUR 3,082,583. The value of unbuilt land is determined at EUR 312,800. Therefore, the value of the building, including built and unbuilt lands, amounts to EUR 3,395,383. Deducting for deviations from normal structural condition EUR 50,000 from the value, the valuator has rounded the appraisal value to EUR 3,345,000.

A quantitative sensitivity analysis for the valuation is shown below:

Sensitivity level M^2 built land	EUR 45/M^2	EUR 55/M^2
Impact in EUR (basis: 14,780 M^2)	-73,900	73,900

Sensitivity level rental building	-5%	5%
Rental value in EUR (basis: EUR 294,624)	-154,100	154,100

Impairment loss and subsequent reversal
The Group neither incurred nor reversed any impairment losses in 2019 (2018: zero).

Assets under construction
Assets under construction are included in the property, plant and equipment category 'Others'. As at 31 December 2019, no assets are under construction (2018: NIL).

Security
Security on land and buildings amounting to EUR 2.5 million is provided as a mortgage right for the holders of the secured bond loan issued in June 2014. The lenders of the secured loan issued in March 2016 were provided a mortgage cover on land and buildings for the outstanding loan amount with a maximum of EUR 500,000. The security for the loan has been released early 2020. For further information on security, reference is made to note 20 'Loans and borrowing'.

10. Right-of-use assets

The impact of the first application of IFRS 16 ‘Leases’ is described in the change of accounting policy section on page 56.

Movements in right-of-use assets can be shown as follows:

(x EUR 1,000)	Company offices	Other operating assets	Total assets
Closing balance previous year	-	-	-
First time adoption IFRS 16 ‘Leases’	958	134	1,092
Carrying amount 1 January 2019	**958**	**134**	**1,092**
Investments in new contracts	23	131	154
Depreciation charge	-223	-67	-290
Carrying amount 31 December 2019	**758**	**198**	**956**
Cost	981	265	1,246
Accumulated depreciation	-223	-67	-290
Carrying amount 31 December 2019	**758**	**198**	**956**

The lease liabilities can be specified as follows:

(x EUR 1,000)	
Closing balance previous year	-
First time adoption IFRS 16 ‘Leases’	1,092
At 1 January 2019	**1,092**
Investments in new contracts	154
Interest costs	5
Lease payments	-292
As at 31 December 2019	**959**
Lease liability – non-current	672
Lease liability – current	287
Total	**959**

The contractual maturity of the future lease liabilities is as follows:

(x EUR 1,000)	31-12-2019
Under one year	287
One to five years	672
Over five years	-
Contractual future lease liabilities	**959**

The consolidated statement of profit or loss contains the following lease items:

(x EUR 1,000)	2019
Variable lease expenses not recognized in lease liability	-
Costs of short-term leases	38
Costs of low-value leases	2
Total	**40**

The adoption of IFRS 16 'Leases' does not affect the Group's ability to comply with possible financing covenants.

11. Intangible assets

(x EUR 1,000)	Goodwill	Development expenditure	Other intangible assets	Total
Cost				
Balance at 1 January 2018	**1,741**	**732**	**158**	**2,631**
Reclassification from Other Assets	-	-	259	259
Investments	-	82	48	130
Disinvestments	-	-	-1	-1
Balance at 31 December 2018	**1,741**	**814**	**464**	**3,019**
Accumulated amortization				
Balance at 1 January 2018	**-**	**63**	**140**	**203**
Reclassification from Other Assets	-	-	243	243
Amortization	-	167	28	195
Disinvestments	-	-	-1	-1
Balance at 31 December 2018	**-**	**230**	**410**	**640**
Carrying amount				
Balance at 1 January 2018	**1,741**	**669**	**18**	**2,428**
Balance at 31 December 2018	**1,741**	**584**	**54**	**2,379**

(x EUR 1,000)	Goodwill	Development expenditure	Other intangible assets	Total
Cost				
Balance at 1 January 2019	**1,741**	**814**	**464**	**3,019**
Investments	-	72	78	150
Disinvestments	-	-	-16	-16
Balance at 31 December 2019	**1,741**	**886**	**526**	**3,153**
Accumulated amortization				
Balance at 1 January 2019	**-**	**230**	**410**	**640**
Amortization	-	167	44	211
Disinvestments	-	-	-16	-16
Balance at 31 December 2019	**-**	**397**	**438**	**835**
Carrying amount				
Balance at 1 January 2019	**1,741**	**584**	**54**	**2,379**
Balance at 31 December 2019	**1,741**	**489**	**88**	**2,318**

Goodwill
Goodwill is tested annually for impairment. The goodwill is allocated to the German subsidiary RoodMicrotec GmbH as the cash-generating unit. The recoverable amount of this cash-generating unit is determined using value-in-use calculations.

These calculations use cash flow projections based on the Group's budget for 2020 and forecasts for 2021-2024, based on an annual organic growth rate of 8.0%. Residual value is based on a 1.0% perpetual growth rate.

The discount rate used is post-tax and reflects specific (market) risks and represents the current WACC. The proportion of the equity and debt used in the WACC calculation is based on the optimum capital structure. The WACC post-tax used is 12.75% (2018: 12.57%).

The discount rate applied in accordance with article 55 of IAS 36 'Impairment of assets' corresponds to a WACC pre-tax of 17.6% (2018: 17.3%).

The recoverable amount for 2019 amounts to EUR 10.3 million. The headroom in the impairment test scenario amounts to EUR 1.5 million. There are no indications for a reasonably possible change in the key assumptions mentioned above.

Sensitivity analyses were prepared to determine the point where an impairment loss would be necessary. The headroom would be zero in case a WACC post-tax is used of 14.6%.

Development expenditure
In 2019, the Group invested in internally generated intangible assets amounting to EUR 72,000 (2018: EUR 82,000). These investments relate to packaging and testing of high power GaN transistors. The project is well aligned with the Group's strategy. Development expenditure will be amortized during the expected economic lifetime of 4 years starting when the project is finished. In 2019, the amortization of development expenditure amounts to EUR 167,000 (2018: EUR 167,000). In 2019, no disinvestment took place (2018: nil).

Amortization is accounted for in the consolidated statement of profit or loss within depreciation. Loss on disinvestments is accounted for in the consolidated statement of profit or loss within other operating expenses.

Other intangible assets

The other intangible assets consist of capitalized expenses related to website and capitalized software and licenses.

12. Deferred tax balances

Deferred tax assets and liabilities are offset, because there is a legally enforceable right to offset current tax assets against current tax liabilities and the deferred taxes relate to the same tax authority.

Deferred taxes comprise the following:

(x EUR 1,000)	31-12-2019	31-12-2018
Deferred tax assets to be recovered > 12 months	1,802	1,830
Deferred tax assets to be recovered < 12 months	-	-
Deferred income tax assets (unnetted)	**1,802**	**1,830**
Deferred tax liabilities to be recovered > 12 months	-208	-410
Deferred tax liabilities to be recovered < 12 months	-	-
Deferred income tax liabilities (unnetted)	**-208**	**-410**
Deferred tax assets (netted)	**1,594**	**1,420**

The movement in deferred tax assets is as follows:

Deferred tax assets

(x EUR 1,000)	Total capitalized carry forward losses
Balance at 1 January 2018	**1,825**
Charges for the financial year	5
Balance at 31 December 2018	**1,830**
Balance at 1 January 2019	**1,830**
Charges for the financial year	-28
Balance at 31 December 2019	**1,802**

The deferred tax asset recognized in the consolidated statement of financial position is calculated as follows:

Tax losses available in Germany	EUR 20.8 million
Potential deferred taxes assets regarding carry forward	EUR 5.5 million
Deferred tax assets carry forward recognized	EUR 1.8 million

As per the end of the year 2019, RoodMicrotec GmbH had approximately EUR 20.8 million tax losses which can be utilized indefinite in time. Consequently, these tax losses can be carried forward and be offset against future profits without any time limitation. The corresponding amount of possible future tax savings depends on the applicable tax rate, which for RoodMicrotec GmbH is 27.5%, being 20.5% on EUR 20.8 million concerning corporate tax losses and 7% on EUR 18.1 million concerning trade tax losses. This results in a potential deferred tax asset in the total amount of EUR 5.5 million.

Consistent with past practice, recognition of deferred tax assets is based on the Group’s (taxable) profits shown in its five-year rolling forecast, based on the internal business plan. The Group's business planning for the financial years 2020-2024, results in a EUR 1.8 million deferred tax asset to be recognized in the consolidated statement of financial position.

IAS 12 'Income Taxes' prescribes that deferred taxes arising from available tax losses are recognized, if the entity has sufficient taxable temporary differences or there is convincing evidence that sufficient taxable profit will be available (IAS 12.35). Entities may look forward for a number of future accounting periods to determine whether they will have sufficient taxable profit to justify recognizing a deferred tax asset. In these circumstances, there is no specific restriction on how many years the entity may look forward, unless there is a date which the availability of the tax losses expires. Generally, evidence supporting or indicating future profits in later financial years will generally not be as convincing as that for earlier periods, but there is no rule as to the duration of the lookout period.

No deferred tax assets have been recognized for tax losses in the Netherlands as the utilization of tax losses in the Netherlands is limited in time. Tax losses can be carried back to tax profits for only the previous year (2018: one year) and can be carried forward to tax profits for the following six years (2018: nine years). These unrecognized tax losses are in total approximately EUR 0.8 million as per 31 December 2019 (2018: EUR 1.1 million).

The year-end tax position for tax losses available relates to the prior fiscal year concerned. The fiscal year of the Group equals the financial year.

Deferred tax liabilities

(x EUR 1,000)	1 January 2018	Recognized in profit or loss	Recognized in other comprehensive income	31 December 2018
Revalued land and buildings	840	-	-32	808
Sale of land	-	-	-71	-71
Pension obligations	-547	48	-32	-531
Machinery and Other assets	64	-18	-	46
Provision jubilee	-	-3	-	-3
Development expenditure	184	-23	-	161
Total	**541**	**4**	**-135**	**410**

(x EUR 1,000)	1 January 2019	Recognized in profit or loss	Recognized in other comprehensive income	31 December 2019
Revalued land and building	737	-58	-	679
Pension obligations	-531	47	-160	-644
Machinery and Other assets	46	-5	-	41
Provision jubilee	-3	-	-	-3
Development expenditure	161	-26	-	135
Total	**410**	**-42**	**-160**	**208**

As a result of the revaluation of land and buildings, the capitalization of development expenditure, different valuation of pension obligations and others, a provision for deferred tax liabilities has been recognized amounting to 27.5% of the difference between the HGB and IFRS valuation. All deferred tax liabilities are within the same jurisdiction.

In 2019, no deferred tax liability is formed on the remeasurement of the Plentum assets of EUR 1,210,000 (2018: EUR 938,000) included in the other comprehensive income movements of the pension obligations (for further details, reference is made to note 21 'Defined benefit obligations'). There is no difference between the HGB and IFRS valuation.

13. Financial assets

(x EUR 1,000)	2019	2018
Cost		
Balance at 1 January	81	138
Net investments	-81	-57
Balance at 31 December	**-**	**81**

The financial assets with a net book value of zero per the end of 2019 (2018: EUR 81,000) comprised of a life insurance policy, which was divested during 2019. The life insurance policies are based on the fair value level input 2, where the insurance company has calculated the value of the assets based on the common used insurance calculation techniques. The financial assets for which fair value (through the consolidated statement of profit or loss) is measured or disclosed in the consolidated financial statements are categorized within the fair value hierarchy.

14. Inventories

(x EUR 1,000)	31-12-2019	31-12-2018
Raw materials and consumables	101	144
Work in progress	363	449
Total	**464**	**593**

No expenses are included in the consolidated statement of profit or loss in 2019 (2018: zero) with respect to write-downs of inventory to lower net realizable value.

15. Trade and other receivables

Trade and other receivables are specified as follows:

(x EUR 1,000)	31-12-2019	31-12-2018
Not overdue	1,430	1,199
< 30 days overdue	203	376
> 30 days and < 60 days overdue	64	116
> 60 days overdue	42	12
Allowance for credit losses	-97	-26
Trade receivables	1,642	1,677
Other receivables	188	415
Total	**1,830**	**2,092**

The carrying amount of the trade and other receivables approximates the fair value, due to their short-term nature.

Information regarding the Group's exposure to credit risk, foreign currency risk and interest rate risk can be found in the section 'Financial risk management and sensitivity analysis'.

Allowance for credit losses
The Group applies the IFRS 9 'Financial instruments' simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables. The loss allowance is determined based on historical data of credit losses and updated periodically to incorporate forward looking information. As per the end of the year 2019, the Group applies a single-loss rate of 1.2% of trade receivables.

The movement in the allowance for credit losses during the year is as follows:

(x EUR 1,000)	2019	2018
Balance at 1 January	-26	-15
Release/addition to the allowance for credit losses	-71	-11
Utilized during the year	-	-
Balance at 31 December	**-97**	**-26**

As at 31 December 2019, trade receivables of around EUR 0.3 million (2018: EUR 0.5 million) were past due. There were indications on the balance sheet date that a provision was necessary in addition to the provision already taken for expected credit losses on trade receivables. For this purpose, an additional provision is taken of EUR 77,000.

16. Cash and cash equivalents

(x EUR 1,000)	31-12-2019	31-12-2018
Cash at bank and on hand	1,002	1,738
Total	**1,002**	**1,738**

17. Share capital

Authorized share capital
At 31 December 2019 the authorized share capital comprised 100,000,000 shares (2018: 100,000,000). The shares have a nominal value of EUR 0.11 each.

In 2019, the movement of the issued shares is as follows:

Date of issuance	Originating from	Nominal Value (EUR)	Number of Shares	Share Capital (EUR)	Share Premium (EUR)
15/01/2019	Warrants III	0.11	2,117,535	232,929	211,753
Total			**2,117,535**	**232,929**	**211,753**

Payment of the shares issued in 2019 was also collected in 2019. As at 31 December 2019, a total number of 74,896,267 shares are issued (2018: 72,778,732). Of these, the Company holds 4,100 shares (2018: 4,100) as treasury shares. The number of shares held by the Company at the end of the year under review was less than 0.01% of the total number of issued shares (2018: < 0.01%).

As at 31 December 2019, the Company has 1,530,785 warrants outstanding, which are all held by Blikkenburg B.V. (2018: 1,530,785). The exercise price of each warrant is EUR 0.42. These warrants are exercisable as of the date of issuance. The expiration date of these warrants is 31 January 2023.

In the past the Company has issued warrants to shareholders and investors as an incentive to attract new investors or to reward long-term shareholders. In the future, the Company may consider issuing warrants again, but will decide on this on a case by case basis.

More details on the exercised options in 2019 are provided in note 19 'Options'.

Share premium
The share premium reserve relates to the issuance of shares above par (nominal value) and granting of options to employees and management. The share premium is the consideration paid for shares in excess of the nominal value.

Revaluation reserve
As a result of the revaluation of land and buildings a revaluation reserve has been recognized. The revaluation reserve cannot be used for dividend distributions.

Non-controlling interests
In November 2010, the German subsidiary RoodMicrotec GmbH issued a perpetual bond of EUR 1,994,096. On 27 December 2012 RoodMicrotec GmbH issued additionally a perpetual bond of EUR 500,000.

The compensation to be paid results from the multiplication of 11.70% annually with the par value per security and the actual number of calendar days in the month for which the compensation is implemented divided by the actual number of days (365 or 366) in the respective calendar year.

RoodMicrotec GmbH is not obligated to pay under one of the following conditions (in this case a claim does not arise):

- if, and insofar as, such a claim would lead to or increase an annual net loss of RoodMicrotec GmbH in the business year to which the determining profit period refers, and
- insofar as the profit distributions from free equity capital cannot be paid simultaneously.

The term "free equity" is the amount that can be normally distributed to the shareholders after dissolution of all "free" reserves.

Compensation becomes only due if, and insofar as, RoodMicrotec GmbH decides on such a payment. If RoodMicrotec GmbH decides against a payment, it is not obliged to pay compensation (so unpaid compensation does not accumulate). If RoodMicrotec GmbH decides on a payment and there are unpaid compensations ("compensation arrears"), then payment of these compensations must occur before any dividends or capital can be paid or distributed to the normal shareholders. As per 31 December 2019, the total unpaid compensation amounts to zero.

There is no contractual obligation for redemption, as the securities are without due date (no redemption period or maturity agreed upon). Furthermore, it is at the discretion of the issuing party when a termination is made.

The securities conditions do not have any redemption triggers that are out of the control of RoodMicrotec GmbH.

Only RoodMicrotec GmbH can unilaterally call-in this bond. The bond does not entitle the owner to any RoodMicrotec N.V. shareholder rights. If an annual compensation payment leads to an annual net loss for RoodMicrotec GmbH in the business year to which the determining profit period refers, or increases a net loss, the claim to this compensation does not arise for the accounting period.

Proposal for result appropriation
In accordance with article 27 of the Company's Articles of Association, the Company proposes to charge the 2019 net loss against retained earnings.

18. Earnings per share

Basic

Basic earnings per share is calculated by dividing the profit or loss attributable to equity holders of the Company by the weighted average number of shares outstanding during the year.

	2019	2018
Net profit (loss) attributable to equity holders of the Company (x EUR 1,000)	-73	125
Weighted average number of shares outstanding (in thousands)	74,808	72,241
Basic earnings per share (x EUR 1)	**-0.00**	**0.00**

Diluted

Diluted earnings per share is calculated by adjusting the weighted average number of shares outstanding, to take into account conversion of all potentially dilutive shares, consisting of warrants and share options which are in the money.

	2019	2018
Net profit (loss) attributable to equity holders of the Company (x EUR 1,000)	-73	125
Weighted average number of shares outstanding (in thousands)	74,808	72,241
Adjustments for:		
- Warrants (in the money) (in thousands)	-	4,026
- Share options (in the money) (in thousands)	180	-
Weighted average number of shares for diluted earnings per share (in thousands)	74,988	76,267
Diluted earnings per share (x EUR 1)	**-0.00**	**0.00**

19. Options

Share options

Share options are granted to the members of the Board of Management. Mr. O.M. Sallenhag and Mr. A. Ladega will be granted a maximum of 200,000 options per year per person depending on the achievement of certain targets related to personal goals and the Group's financial and operational performance. The targets are defined by the Supervisory Board.

The exercise price of the options granted to Mr. O.M. Sallenhag and Mr. A. Ladega is 20% below the market closing price of the shares on the last trading day of the previous year. The share options granted to Mr. O.M. Sallenhag and Mr. A. Ladega have no vesting period. The options will expire three years after grant date or on the date of retirement whichever is earlier. Option rights that will not have been exercised as of the day the employee agreement will have been terminated, will be cancelled on the day of termination.

The Group has no legal or constructive obligation to repurchase or settle the options in cash. The share options are valued using the Black and Scholes valuation model.

The following parameters have been used for the calculation:
- 43.78% volatility, 60 days;
- Fair value of share price at grant date: EUR 0.262;
- 0% dividend-yield;
- 1% annual risk-free interest rate;
- Expected option life of 2.15 years.

The value of the accrued options in 2019 was zero (2018: EUR 20,000).

Option holder	Balances as at 31-12-2018	Granted in 2019	Exercised in 2019	Expired/ Cancelled	Balances as at 31-12-2019	Exercise price in EUR
Mr. M. Sallenhag						
2018	-	120,000	-	-	120,000	0.20
Mr. A. Ladega						
2018	-	60,000	-	-	60,000	0.20
Mr. R. Pusch						
2018	-	100,000	-	100,000	-	-
Total	**-**	**280,000**	**-**	**100,000**	**180,000**	

As of 6 March 2019 280,000 options were granted and approved for the year 2018 by the Supervisory Board to the members of the Board of Management. The options granted to Mr. R. Pusch in 2018 were cancelled following his retirement in 2019. Due to the 2019 net loss of the Group, no options will be granted for 2019.

20. Loans and borrowings

This note provides information on the contractual terms of the Group's interest-bearing loans and borrowings.

(x EUR 1,000)	31-12-2019	31-12-2018
Secured bond loan	2,474	2,426
Secured loan	-	217
Loans from credit institutions	-	10
Total loans and borrowings	2,474	2,653
Less: current portion of long-term loans	-2,474	-227
Total non-current loans and borrowings	**-**	**2,426**

Terms and debt repayment schedule

(x EUR 1,000)	Total	Current liabilities	Non-current liabilities	1 to 2 years	2 to 5 years	More than 5 years
Secured bond loan	2,474	2,474	-	-	-	-
Total interest-bearing loans and borrowings	**2,474**	**2,474**	-	**-**	-	**-**

Interest expenses repayment schedule as per 31 December 2019

(x EUR 1,000)	Total	Current liabilities	Non-current liabilities	1 to 2 years	2 to 5 years	More than 5 years
Secured bond loan	75	75	-	-	-	-
Total	**75**	**75**	-	-	-	**-**

Secured bond loan
On 30 June 2014, the Group issued a EUR 2,500,000 bond loan with mortgage cover. The bond loan is composed of 2,500 bonds with EUR 1,000 nominal value at an issue price EUR 2,350,000. Maturity date is 30 June 2020. Upon issuance, the bond was discounted at 94% (EUR 150,000). The fixed annual coupon rate is 6% and the effective annual interest rate is 8.11%. Upon issuance, the Group capitalized bond issuance cost amounting to EUR 100,000 which will be amortized in six years. The amortization in 2019 related to the discount and bond issuance cost amounted to EUR 48,000 (2018: EUR 45,000). As at 31 December 2019, the secured bond loan amounted to EUR 2,474,000 (2018: EUR 2,426,000). For further information on the extension of the maturity date of secured bond loan with one year to 30 June 2021, reference is made to note 26 'Events after balance sheet date'.

Secured loan
In March 2016, a group of investors provided a loan of EUR 750,000 with a mortgage cover on land and buildings of EUR 500,000 and a right of pledge on machinery and equipment of EUR 250,000. Upon issuance, the loan was discounted at 90% (less EUR 75,000). The total duration of the loan was 48 months with a fixed annual payable interest of 5% on the outstanding gross amount. The effective annual interest rate was 8.86%. In March 2017 the Group repaid 10% and in March 2018 60% of the loan. The right of pledge on machinery and equipment has expired in April 2018. In March 2019 the final 30% was repaid. The mortgage cover for the loan has been released early 2020.

Loans from credit institutions
In 2016, the Group signed an agreement with a credit institution for a short-term loan of EUR 115,000 for the upgrade of a machine. The loan is repaid in 36 equal monthly installments with a fixed monthly payable interest of 0.33% on the outstanding gross amount (annually effective interest rate of 4.04%). In 2019 the final instalment was paid.

Interest rates

The average interest rates were as follows:

	2019	2018
Secured bond loan	6.00%	6.00%
Secured loan	5.00%	5.00%
Loans from credit institutions	4.04%	4.04%

21. Defined benefit obligations

Defined benefit plans
The Group funds defined benefit plans for qualifying employees at RoodMicrotec GmbH. These plans are subject to German laws and are administered by a separate fund that is legally separated from the Group. The trustees of these funds are appointed by the Group. The pension benefits are based on the pensionable salary (or in some cases on the ratio of salary and a social security contribution ceiling) and the worked service years. Since the 1990's, the pension schemes are closed for new members. At the moment the pension schemes have 53 participants of which 8 are active participants who are still employed by and working in the Group.

The plans expose the Group to actuarial risks such as interest rate risk. The schemes do not expose the Group to any unusual scheme-specific risk. The defined benefit pension plan comprising defined benefit arrangements and arrangements congruently matched by insurance policies are partly reinsured. The reserves required for these obligations are recognized, net of plan assets, in the consolidated statement of financial position.

The most recent actuarial valuations of plan assets and the present value of the defined benefit obligation were carried out on 31 December 2019 by Mercer Deutschland GmbH, Frankfurt am Main. The present value of the defined benefit obligation and the related current service costs and past service costs have been measured using the projected unit credit method. The charge for the year is included in the employee benefits expense in the consolidated statement of profit or loss.

The principal assumptions used for the purpose of the actuarial valuations at 31 December are as follows:

	2019	2018
Discount rate at 31 December	1.12%	2.02%
Expected duration in years, active employees	20 years	20 years
Expected duration in years, pensioners	10 years	10 years
Expected duration in years, mixed	15 years	15 years
Mortality	RT Heubeck 2018 G	RT Heubeck 2018 G
Disability	RT Heubeck 2018 G	RT Heubeck 2018 G
Marriage	RT Heubeck 2018 G	RT Heubeck 2018 G
Withdrawal	Mercer specific tables	Mercer Inhouse-Tables

The movement in the present value of the defined benefit obligations and in the fair value of the plan assets is as follows:

(x EUR 1,000)	2019	2018
Defined benefit obligations and plan assets		
Defined benefit obligations at 1 January	6,232	6,346
Current service costs	4	16
Interest costs	121	117
Actuarial gains (-) or losses	640	152
Pension payments	-363	-399
Defined benefit obligations at 31 December	**6,634**	**6,232**
Fair value of plan assets at 1 January	2,858	3,812
Remeasurement recognized in OCI	-1,210	-938
Interest income on plan assets	25	25
Return on plan assets	57	35
Pension payments from plan assets	-116	-76
Fair value of plan assets at 31 December	**1,614**	**2,858**
Net defined benefit obligations at 31 December	**5,020**	**3,374**

Plan assets

Plan assets as per year-end are composed of life insurance policies amounting to EUR 1.6 million (2018: EUR 1.7 million), which are held at insurance companies and Plentum bonds in the amount of zero (2018: EUR 1.2 million).

The fair values of these life insurance policies are determined based on quoted market prices in active markets. The actual return on plan assets was EUR 57,000 negative (2018: EUR 35,000 negative). The plan assets do not include any of the Group's own financial instruments, nor any property occupied by or other assets used by the Group.

As per 30 November 2010 the Group owns a EUR 2.0 million high-yield (10.9%) bond in the Plentum Fund VI SCS issued by Plentum Luxembourg S.a.r.l. As per 27 December 2012 the Group purchased another similar bond from this fund at a 10.5% rate with a size of EUR 0.5 million. The bonds are held in deposit at the UBS Bank. The fair value of the Plentum bonds are based on level 3 (unobservable) inputs, relevant observable inputs are not available for the fund. Early 2020, the Group received information of the insolvency in 2019 of the Plentum funds resulting in an impairment of EUR 1.2 million in 2019, which is recognized through OCI. Consequently, the fair value of the Plentum plan assets amounts to zero per 31 December 2019.

Amounts recognized in the profit or loss related to the Group's defined benefit plans are as follows:

(x EUR 1,000)	2019	2018
Current service costs	4	16
Net interest expenses	96	92
Expenses recognized in profit or loss	**100**	**108**

Amounts recognized in other comprehensive income (OCI) related to the Group's defined benefit plans are as follows:

(x EUR 1,000)	2019	2018
Effect of changes in financial assumptions	585	-58
Effect of changes in demographical assumptions	-	110
Effect of experience adjustments	55	100
Return on plan assets or reimbursement rights excl. interest income	-57	-35
Remeasurement recognized in OCI	1,210	938
Expenses recognized in OCI	**1,793**	**1,055**

A quantitative sensitivity analysis for the discount rate as at 31 December 2019 is as shown below:

Assumption	**Discount rate**	
Sensitivity level	0.5% increase	0.5% decrease
Impact on defined benefit obligation in EUR	-337,000	369,000

The sensitivity analysis is prepared at the end of the reporting period using the same methods as applied in the defined benefit obligation in the consolidated statement of financial position. The sensitivity analysis may not be representative of the actual change in the defined benefit obligation.

The Group's expected pension payments for 2020 are EUR 0.4 million (2019: EUR 0.5 million).

22. Provisions

(x EUR 1,000)	31-12-2019	31-12-2018
Warranty provisions	67	68
Other provisions	38	39
Total	**105**	**107**

Warranty provisions are related to warranties issued contractually on products supplied and services rendered as at balance sheet date. The purpose of the provision is to cover costs arising if products and services supplied do not meet the agreed specifications. The provision is based on estimates using the historic warranty data relating to comparable products and services. The provision for warrant obligations are expected to have a duration between one and five years.

The other provisions relate to employee liabilities such as defined jubilees and are in general long-term. Remeasurements are recognized in profit or loss in the period in which they arose.

23. Trade and other payables

(x EUR 1,000)	31-12-2019	31-12-2018
Suppliers and trade creditors	706	892
Other payables	1,085	1,313
Total	**1,791**	**2,205**

The carrying amount of the trade and other payables approximates the fair value, due to their short-term nature.

Other payables consist of non-trade payables and accrued expenses.

24. Off-balance sheet commitments

Operating leases
As of 1 January 2019, the Group has been applying IFRS 16 'Leases', meaning that assets and liabilities of all leases are recognized in the consolidated statement of financial position, unless the lease term is under 12 months or the leases are low-value leases. Reference is made here to note 10 'Right-of-use assets'.

Operating leases as lessee

(x EUR 1,000)	2019	2018
Less than one year	12	105
Between one and five years	24	72
More than five years	-	-
Total	**36**	**177**

Rental commitments office

(x EUR 1,000)	2019	2018
Less than one year	2	218
Between one and five years	-	728
More than five years	-	-
Total	**2**	**946**

Capital commitments
As at 31 December 2019 the Group entered into a contract to purchase equipment. Total purchase commitment is EUR 434,000 (2018: EUR 700,000).

Security
The "Stichting Obligatiehoudersbelangen" in Amsterdam in the Netherlands, representing all holders of the bonds for the secured bond loan issued in June 2014, received a German mortgage right that is called "Buchgrundschuld" amounting to EUR 2,500,000. The "Buchgrundschuld" is registered in Augsburg with the land registry number 10988. In 2017, the registered property is valued at EUR 3,345,000 by an officially recognized valuer - Diplom-Betriebswirt (FH) Friedrich Kiefer and concerns the property owned by the Group in Nördlingen, Germany.

In 2017, the mortgage right for the secured loan issued in March 2016 with mortgage cover of EUR 500,000 was registered in Augsburg. In 2019, this secured loan was fully repaid. The right of mortgage of EUR 500,000 for the secured loan has been released in January 2020. The "Stichting Obligatiehoudersbelangen" also represents the lenders of the secured loan.

The Company has issued a guarantee for EUR 7,500 to a third party concerning the rent of the office in Zwolle.

The Company and the Dutch subsidiary company form a fiscal unity for corporate tax. Each of these companies is severally liable for corporate tax to be paid by all companies that belong to the fiscal unity.

25. Related parties

The Group has related party relationships with its key management personnel, being represented by the Company's Board of Management and Supervisory Board.

Remuneration of Board of Management

	Fixed compensation		Short-term incentive		Long-term incentive		Other benefits		Total	
(x EUR 1,000)	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Mr. O.M. Sallenhag	132	124	-	2	4	8	7	8	143	142
Mr. A. Ladega[1]	67	N/A	-	N/A	2	N/A	9	N/A	78	N/A
Mr. R. Pusch[2]	50	120	-	2	2	8	3	7	55	137
Total	**249**	**244**	**-**	**4**	**8**[3]	**16**	**19**	**15**	**276**	**279**

[1] from 23 May 2019
[2] until 23 May 2019
[3] recalculation Long-Term Incentive for 2018

The remuneration of the Board of Management is determined by the Supervisory Board.

At the end of 2019, Mr. O.M. Sallenhag holds 365,000 shares and Mr. A. Ladega holds 226,000 shares in the capital of the Company.

Remuneration of the Supervisory Board

(x EUR 1,000)	2019	2018
Mr. V.G. Tee	14	13
Mr. M.E.T. Verstraeten[1]	7	N/A
Mr. H.J. Bartelink[2]	4	10
Mr. J.B. Tuik[2]	4	10
Total	**29**	**33**

[1] from 23 May 2019
[2] until 23 May 2019

There are no loans outstanding to the members of the Supervisory Board, nor have any guarantees been given on behalf of members of the Supervisory Board.

At the end of 2019, the members of the Supervisory Board did not hold any shares or any options on shares in the capital of the Company.

Other related party transactions

In 2019, the Group has not entered into any other related party transactions except for intercompany charges between the Company and RoodMicrotec GmbH.

Mr. O.M. Sallenhag participated in the secured loan to the Company for an amount of EUR 30,000. Mr. R. Pusch participated in the secured loan to the Company for an amount of EUR 5,000. In March 2019 the final instalment was paid.

26. Events after balance sheet date

Subsequent to 31 December 2019, the following events occurred:

Maturity date secured bond loan

On 6 May 2020 a virtual extraordinary bondholders meeting took place with the proposal to extend the bond term with one year. The proposal was accepted and the maturity date of the secured bond is now 30 June 2021. The other conditions have remained the same.

COVID-19

The COVID-19 (coronavirus) outbreak has developed rapidly since the beginning of 2020, with a significant number of infections and casualties. Measures taken by various governments to contain the virus have affected economic activity substantially. Management has taken a number of measures to monitor and prevent the effects of the COVID-19 virus, such as safety and health measures for our people (like social distancing and working from home) and securing the supply of materials that are essential to the Group's production process.

At this stage, the impact on the Group's business and results is visible. Management will continue to follow the various national institutes' policies and advice and in parallel will do its utmost to continue the Group's operations in the best and safest way possible without jeopardizing the health of the employees.

Reference is also made here to the going concern paragraph (page 55).

C. COMPANY FINANCIAL STATEMENTS

Company Statement of Financial Position

(Before appropriation of result)

(x EUR 1,000)	Notes	31-12-2019	31-12-2018 Restated*
ASSETS			
Property, plant and equipment		76	6
Investments in group companies	1	-	-
Loans to group companies	2	2,477	3,830
Non-current assets		**2,553**	**3,836**
Loans to group companies	2	962	613
Trade and other receivables		36	213
Cash and cash equivalents	3	609	1,183
Current assets		**1,607**	**2,009**
Total assets		**4,160**	**5,845**
EQUITY AND LIABILITIES			
Issued share capital		8,239	8,006
Share premium		20,709	20,497
Revaluation reserve		1,789	1,943
Other reserves		-29,213	-27,856
Unappropriated result		-73	125
Shareholders' equity	4	**1,451**	**2,715**
Loans and borrowings	5	-	2,430
Lease liabilities		36	-
Non-current liabilities		**36**	**2,430**
Loans and borrowings	5	2,476	217
Current lease liabilities		35	-
Trade and other payables	6	162	483
Current income tax liabilities		-	-
Current liabilities		**2,673**	**700**
Total equity and liabilities		**4,160**	**5,845**

The numbers following the various items refer to the notes on pages 95 to 103.

* Comparative information has been restated as a result of a correction of errors, reference is made to page 95.

Company Statement of Profit or Loss

(x EUR 1,000)	Notes	2019	2018 Restated*
Net sales	7	390	475
Total income		**390**	**475**
Other external expenses	8	-138	-1,820
Personnel expenses	9	-224	-284
Depreciation and amortization	10	-42	-25
Total expenses		**-404**	**-2,129**
Operating profit (loss)		**-14**	**-1,654**
Interest income and similar income	11	459	474
Interest expenses and similar charges	11	-206	-236
	11	**253**	**238**
Profit (loss) before taxes		**239**	**-1,416**
Taxes	12	-	-
Share in results from participating interests, after taxes	13	-312	1,541
Net profit (loss)		**-73**	**125**

The numbers following the various items refer to the notes on pages 95 to 103.

* Comparative information has been restated as a result of a correction of errors, reference is made to page 95.

D. NOTES TO THE COMPANY FINANCIAL STATEMENTS

General

These company financial statements and the consolidated financial statements together constitute the statutory financial statements of RoodMicrotec N.V. (hereafter: 'the Company'). The financial information of the Company is included in the consolidated financial statements, as presented on pages 49 to 53.

Accounting policies have been applied consistently for all periods presented in these company financial statements, except for the item mentioned below and the adoption of IFRS 16 'Leases', for which reference is made to the Accounting policies in the Group's consolidated financial statements. The adoption of IFRS 16, and any other amendments and interpretations for the first time applied in 2019, did not have a material impact on the company financial statements.

The Company has its registered address at Zutphenseweg 29 D1, Deventer, the Netherlands, and is registered with the trade register of the Dutch Chamber of Commerce under number 33251008.

Basis of preparation

These company financial statements have been prepared in accordance with Title 9, Book 2 of the Dutch Civil Code. For setting the principles for the recognition and measurement of assets and liabilities and determination of results for its separate financial statements, the Company makes use of the option provided in section 2:362(8) of the Dutch Civil Code. This means that the principles for the recognition and measurement of assets and liabilities and determination of the result (hereinafter referred to as principles for recognition and measurement) of the separate financial statements of the Company are the same as those applied for the consolidated EU-IFRS financial statements. These principles also include the classification and presentation of financial instruments, being equity instruments or financial liabilities. In case no other principles are mentioned, refer to the accounting principles as described in the consolidated financial statements. For an appropriate interpretation of these statutory financial statements, the separate financial statements should be read in conjunction with the consolidated financial statements.

The company financial statements are presented in euros and all values are rounded to the nearest thousand (EUR '000), except when otherwise indicated.

Correction of errors

During 2019, the Company discovered the following errors in its 2018 company financial statements.

Presentation of perpetual bonds
The Company discovered that it has incorrectly recognized perpetual bonds in the Company Statement of Financial Position. In the past, RoodMicrotec GmbH issued mezzanine capital amounting to EUR 2,494,000 to third parties for the financing of pension liabilities. These bonds qualify as equity instruments for the subsidiary, and were included in the net asset value of the subsidiary. However, since the bonds were issued by the subsidiary and are held by a third party, the perpetual bonds should not have been recognized in the company financial statements. The error has been corrected by restating the affected financial statement line items for 2018.

Presentation of loans to group companies
The Company discovered that the Loans to group companies were for an amount of EUR 4,275,000 erroneously presented as current assets instead of non-current assets. Based on the Dutch accounting Standards Board guidelines for annual reporting 2019 ('RJ') chapter 190, this portion should be classified as non-current assets, since settlement is neither planned nor likely to occur in the foreseeable future and as a result these loans and receivables are in substance an extension of the investment of the parent company in RoodMicrotec GmbH. As a consequence the line item Loans to group companies classified as non-current assets was understated and the line item Loans to group companies classified as current assets overstated for the same amount. The error has been corrected by restating the affected financial statement line items for 2018.

The following table summarizes the impact on the 2018 Company Statement of Financial Position for both the aforementioned errors.

Company Statement of Financial Position

(Before appropriation of result)

31 December 2018 (EUR x1,000)	As previously reported	Adjustment	As restated
ASSETS			
Property, plant and equipment	6	-	6
Investments in group companies	-	-	-
Loans to group companies	2,049	1,781	3,830
Non-current assets	**2,055**	**1,781**	**3,836**
Loan to group companies	4,888	(4,275)	613
Trade and other receivables	213	-	213
Cash and cash equivalents	1,183	-	1,183
Current assets	**6,284**	(4,275)	**2,009**
Total assets	**8,339**	**(2,494)**	**5,845**
EQUITY AND LIABILITIES			
Issued share capital	8,006	-	8,006
Share premium	20,517	-	20,517
Revaluation reserve	1,943	-	1,943
Other reserves	-27,876	-	-27,876
Unappropriated result	125	-	125
Shareholders' equity	**2,715**	**-**	**2,715**
Perpetuals	2,494	(2,494)	-
Total risk-bearing capital	**5,209**	-	**-**
Loans and borrowings	2,430	-	2,430
Lease Liabilities	-	-	-
Non-current liabilities	**2,430**	**-**	**2,430**
Loans and borrowings	217	-	217
Current Lease liabilities	-	-	-
Trade and other payables	483	-	483
Current income tax liabilities	-	-	-
Current liabilities	**700**	**-**	**700**
Total equity and liabilities	**8,339**	(2,494)	**5,845**

Presentation of Company Statement of Profit or Loss
The Company noted that the Dutch requirements of presentation of statements of profit or loss in accordance with the applicable Dutch 'Besluit Modellen Jaarrekening' were not met in terms of presenting the Company Statement of Profit or Loss for 2018. The standard requires the presentation of analysis of expenses recognized in profit or loss using a classification based on either their nature or their function within the entity, whichever provides information that is reliable and more relevant. The Company presented an analysis of expenses using a mixture of classification by nature and function, which does not meet the requirements of 'Besluit Modellen Jaarrekening'.

Further, the use of subtotals EBIT and EBITDA is not allowed. To correct the errors, the presentation of the Company Statement of Profit or Loss has been amended to present expenses by nature. The following line items in the 2018 Company Statement of Profit or Loss were affected:

- The subtotals Gross profit, EBITDA and EBIT have been removed;
- The line item Financial income or expenses of EUR 238,000 has been split into 'Interest income and similar income' for an amount of EUR 474,000 and 'Interest expenses and similar charges' for an amount of EUR 236,000;
- Names and sequence of line items have been changed or clarified, to bring them in line with the requirements of the Dutch 'Besluit Modellen Jaarrekening'.

Financial instruments

The Group has exposure to the following risks from its use of financial instruments:

- Credit risk;
- Liquidity risk;
- Market risk.

In the notes to the consolidated financial statements information is included about the Group's exposure to each of the above risks, the Group's objectives, policies and processes for measuring and managing risk, and the Group's management of capital.

These risks, objectives, policies and processes for measuring and managing risk, and the management of capital apply also to the company financial statements.

The fair values of most of the financial instruments recognized in the company statement of financial position, including accounts receivable, approximately equal their carrying amounts. The fair value of the accounts receivable from participating interests cannot be determined with sufficient certainty. For further information, please refer to note 3 'Cash and cash equivalents' and note 6 'Trade and other payables'.

Investments in group companies

Group companies are all entities in which the Company has directly or indirectly control. The Company controls an entity when it is exposed, or has rights, to variable returns from its involvement with the group company and has the ability to affect those returns through its power over the group company. Group companies are recognized from the date on which control is obtained by the Company and derecognized from the date that control by the Company over the group company ceases. Investments in group companies are accounted for in the company financial statements according to the equity method, with the principles for the recognition and measurement of assets and liabilities and determination of results as set out in the notes to the consolidated financial statements.

Investments in subsidiaries with a negative net asset value are valued at nil. This measurement also covers any receivables provided to the investments in subsidiaries that are, in substance, an extension of the net investment. In particular, this relates to loans for which settlement is neither planned nor likely to occur in the foreseeable future. A share in the profits of the investments in subsidiaries in subsequent years will only be recognized if and to the extent that the cumulative unrecognized share of loss has been absorbed. If the Company fully or partially guarantees the debts of the relevant investment in subsidiary, or if has the constructive obligation to enable the investments in subsidiary to pay its debts (for its share therein), then a provision is recognized accordingly to the amount of the estimated payments by the Company on behalf of the investments in subsidiary.

Share of result of participating interests after taxes

The share in the result of participating interests consists of the share of the Company in the net result after taxes of these participating interests. Results on transactions involving the transfer of assets and liabilities between the Company and its participating interests and mutually between participating interests themselves, are eliminated to the extent that they can be considered as not realized.

The Company makes use of the option to eliminate intragroup expected credit losses against the book value of loans and receivables from the Company to participating interests, instead of elimination against the equity value / net asset value of the participating interests.

1. Investments in group companies

This item relates to the Company’s wholly owned subsidiaries, which are the only two group companies.

Movements in this item were as follows:

(x EUR 1,000)		2019		2018
Balance at 1 January		-4,395		-4,975
Result of group companies		-312		1,541
Accounting policy changes - IFRS 9 ‘Financial instruments’		-		-9
Remeasurement of defined benefit obligations		-583		-117
Remeasurement of defined benefit obligations – deferred tax liability		160		32
Remeasurement return on plan assets		-1,210		-938
Sale of Land – deferred tax liability		-		71
		- 6,340		**- 4,395**
Provision group companies				
Provision at 1 January	4,395		4,975	
Changes	1,945		-580	
Provision at 31 December		**6,340**		**4,395**
Balance at 31 December		**-**		**-**

2. Loans to group companies

This item relates to subordinated loans issued to the subsidiaries. The subordinated loans amounted to EUR 1,580,000 with an interest rate of 8%, a EUR 2,700,000 loan with an interest rate of 7%, a EUR 5,250,000 loan with an interest rate of 5%. In 2019 a new loan is provided of EUR 725,000 with an interest rate of 6.5% with pledge on equipment.

Movements in this item were as follows:

(x EUR 1,000)		2019		2018
Balance at 1 January		8,838		10,468
Loans provided		725		-
Redeemed loans		-613		-1,360
Other additions (payments)		829		-270
Balance at 31 December		**9,779**		**8,838**
Provision group companies				
Provision at 1 January	-4,395		-4,975	
Changes	-1,945		580	
Provision at 31 December		**-6,340**		**-4,395**
Transfer of current portion to current assets		-962		-613
Total non-current loans to group companies at 31 December		**2,477**		**3,830**

For the negative equity of the German subsidiary, a provision on the non-current loans to group companies is recognized. This provision amounts to EUR 6,340,000 as per 31 December 2019 (31 December 2018: EUR 4,395,000). The Company is liable for this subsidiary.

3. Cash and cash equivalents

(x EUR 1,000)	31-12-2019	31-12-2018
Cash at bank and on hand	609	1,183
Total	**609**	**1,183**

4. Shareholders' equity

(x EUR 1,000)	Issued share capital	Share premium	Revaluation reserve	Other reserves	Unappro-priated result	Total
Balance at 1 January 2018	**7,339**	**19,906**	**2,216**	**-27,153**	**-44**	**2,264**
Issuance of shares	667	591	-	-	-	1,258
Valuation options granted	-	-	-	20	-	20
Transactions with equity holders	**8,006**	**20,497**	**2,216**	**-27,133**	**-44**	**3,542**
Appropriation of result	**-**	**-**	**-**	**-44**	**44**	**-**
Net profit (loss)	-	-	-	-	125	125
Other comprehensive income (OCI)						
Remeasurement of defined benefit obligation	-	-	-	-85	-	-85
Remeasurement of plan assets	-	-	-	-938	-	-938
Sale of revalued land	-	-	-184	255	-	71
Revaluation of land and buildings	-	-	-89	89	-	-
Total OCI for the year	**-**	**-**	**-273**	**-723**	**169**	**-827**
Balance at 31 December 2018	**8,006**	**20,497**	**1,943**	**-27,856**	**125**	**2,715**
Balance at 1 January 2019	**8,006**	**20,497**	**1,943**	**-27,856**	125	**2,715**
Issuance of shares	233	212	-	-	-	445
Valuation options granted	-	-	-	-3	-	-3
Transactions with equity holders	**8,239**	**20,709**	**1,943**	**-27,859**	**125**	**3,157**
Appropriation of result	-	-	-	125	-125	-
Net profit (loss)	-	-	-	-	-73	-73
Other comprehensive income (OCI)						
Remeasurement of defined benefit obligation	-	-	-	-423	-	-423
Remeasurement of plan assets	-	-	-	-1,210	-	-1,210
Revaluation of land and buildings	-	-	-154	154	-	-
Total OCI for the year	**-**	**-**	**-154**	**-1,354**	**-198**	**-1,706**
Balance at 31 December 2019	**8,239**	**20,709**	**1,789**	**-29,213**	**-73**	**1,451**

Revaluation reserve

A revaluation reserve has been formed for the revaluation of land and buildings of the German subsidiary RoodMicrotec GmbH. This reserve is regarded a legal reserve pursuant to article 2:373 of the Dutch Civil Code and, consequently, is not available for dividend distribution to equity holders.

For a description of the rules of result appropriation, reference is made to note 17 'Share capital' of the consolidated financial statements.

5. Loans and borrowings

This note provides information on the contractual terms of the Company's interest-bearing loans and borrowings.

(x EUR 1,000)	31-12-2019	31-12-2018
Secured bond loan	2,476	2,430
Secured loan	-	217
Total loans and borrowings	2,476	2,647
Transfer of current portion to current liabilities	-2,476	-217
Total non-current loans and borrowings	**-**	**2,430**

Terms and debt repayment schedule as per 31 December 2019

(x EUR 1,000)	Total	Current liabilities	Non-current liabilities	1 to 2 years	2 to 5 years	More than 5 years
Secured bond loan	2,476	2,476	-	-	-	-
Total interest-bearing loans and borrowings	**2,476**	**2,476**	-	**-**	-	**-**

Interest expenses repayment schedule as per 31 December 2019

(x EUR 1,000)	Total	Current liabilities	Non-current liabilities	1 to 2 years	2 to 5 years	More than 5 years
Secured bond loan	75	75	-	-	-	-
Total	**75**	**75**	-	-	-	**-**

For further details, reference is made to note 20 'Loans and borrowings' of the consolidated financial statements.

6. Trade and other payables

(x EUR 1,000)	31-12-2019	31-12-2018
Suppliers and trade creditors	69	30
Other payables	93	453
Total	**162**	**483**

The carrying amount of the trade and other payables approximates the fair value, due to their short-term nature. Other payables consist of non-trade payables and accrued expenses.

7. Net sales

Net sales comprises charges to group companies with regard to management fees and corporate overhead.

8. Other external expenses

(x EUR 1,000)	2019	2018
Housing and equipment costs	36	59
Selling and administrative expenses	102	1,761
Total	**138**	**1,820**

The selling and administrative expenses includes a release of a provision of EUR 124,000 which was formed in 2018 for legal proceedings against a debtor. In 2019 the Company received a verdict from the court regarding the legal proceedings.

The selling and administrative expenses include a release of a provision of EUR 175,000 which was formed in 2018 for withholding VAT expenses. In 2019 the tax audit was completed in the Netherlands.

In 2018, the Company waived RoodMicrotec Dresden GmbH (former subsidiary) the claim in the total amount of EUR 1,021,000 in the intercompany loan including accrued interest. This expense was recorded in selling and administrative expenses in 2018.

9. Personnel expenses

(x EUR 1,000)	2019	2018
Salaries	203	239
Social securities	24	25
Share options	-3	20
Total	**224**	**284**

Remuneration of and share ownership by the Board of Management and Supervisory Board

The information as referred to in section 383, subsection 1, of Book 2 of the Dutch Civil Code is disclosed in note 25 'Related parties' of the consolidated financial statements.

10. Depreciation and amortization

(x EUR 1,000)	2019	2018
Machinery and equipment	-	22
Right-of-use assets	40	-
Other fixed assets	2	3
Total	**42**	**25**

11. Financial income and expenses

(x EUR 1,000)	2019	2018
Interest income:		
- intercompany loan	459	474
- other financial income	-	-
Interest expenses:		
- bond loan	-196	-192
- other loans	-10	-44
Total	**253**	**238**

The interest expenses include amortization costs amounting to EUR 53,000 (2018: EUR 69,000), which relate to discount and bond issuance cost of the secured bond loan and the secured loan.

12. Taxes

(x EUR 1,000)	2019	2018
Profit (loss) before taxes	239	-1,416
Utilization of unrecognized tax losses / tax losses carried forward	-239	1,416
Taxable profit (loss)	-	-
Taxes based on the weighted average applicable rate	-	-
Total	**-**	**-**

Utilization of tax losses in the Netherlands is limited in time. Since the beginning of 2019, tax losses can be carried back to tax profits for only the previous year (2018: one year) and can be carried forward to tax profits for the following six years (2018: nine years). No deferred tax assets have been recognized for tax losses in the Netherlands. These unrecognized tax losses are in total approximately EUR 0.8 million as per 31 December 2019 (2018: EUR 1.1 million).

13. Share of result of participating interests after taxes

(x EUR 1,000)	2019	2018
Share of result of participating interests after taxes:		
- RoodMicrotec GmbH	-312	544
- RoodMicrotec International B.V. (dormant subsidiary)	-	-
- RoodMicrotec Dresden GmbH (former subsidiary)	-	997
Total	**-312**	**1,541**

14. Employees

The Company has an average of 3 employees in 2019 (2018: 3), all of whom are based in the Netherlands.

15. Off-balance sheet assets and liabilities

Joint and several liability and guarantees

Pursuant to article 264 (3) of the German Commercial Code, the Company has issued declarations of joint and several liability for debts arising from legal acts of RoodMicrotec GmbH amounting to EUR 7.6 million (2018: EUR 6.3 million).

In addition, at 31 December 2019 a guarantee in the form of a bank guarantee was issued for approximately EUR 7.5 thousand (2018: approximately EUR 7.5 thousand) to a third party concerning the rent of the office in Zwolle.

Fiscal unity

The Company and the Dutch subsidiary company form a fiscal unity for corporate tax. Each of these companies is severally liable for corporate tax to be paid by all companies that belong to the fiscal unity.

16. Events after balance sheet date

For information on the events after balance sheet date, reference is made to note 26 'Events after balance sheet date' of the consolidated financial statements.

Deventer, 10th June 2020

Board of Management	**Supervisory Board**
O.M. Sallenhag, CEO	V.G. Tee, Chairman
A. Ladega, CFO	M.E.T. Verstraeten

OTHER INFORMATION

PROFIT APPROPRIATION

Article 27 of the Company's Articles of Association includes the following provisions for profit appropriation:

1. the Company may pay dividends and make other distributions only to the extent that its equity exceeds the amount of the paid-up and called-up portion of the share capital plus the reserves which must be maintained by law and under these articles;
2. subject to the prior approval of the Supervisory Board, the Board of Management is authorized to add any profit in whole or in part to the reserves;
3. any profit remaining after reservation referred to in the preceding paragraph will be at the disposal of the annual general meeting of shareholders;
4. to the extent that the general meeting of shareholders does not resolve to distribute the profit for any financial year, such profit will be added to the reserves.

KPMG

Independent auditor's report

To: the General Meeting of Shareholders and the Supervisory Board of RoodMicrotec N.V.

Report on the audit of the financial statements 2019 included in the annual report

Our opinion

In our opinion:

— the accompanying consolidated financial statements give a true and fair view of the financial position of RoodMicrotec N.V. as at 31 December 2019 and of its result and its cash flows for the year then ended, in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code;

— the accompanying company financial statements give a true and fair view of the financial position of RoodMicrotec N.V. as at 31 December 2019 and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the financial statements 2019 of RoodMicrotec N.V. ('the Company') based in Deventer. The financial statements include the consolidated financial statements and the company financial statements.

The consolidated financial statements comprise:

1. the consolidated statement of financial position as at 31 December 2019;
2. the following consolidated statements for 2019: the statements of profit or loss, comprehensive income and changes in equity and the cash flow statement; and
3. the notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

1. the company statement of financial position as 31 December 2019;
2. the company statement of profit or loss for 2019; and
3. the notes comprising a summary of the accounting policies and other explanatory information.

KPMG

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the financial statements' section of our report.

We are independent of RoodMicrotec N.V. in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics).

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Material uncertainty related to going concern

We draw attention to the paragraph 'Going Concern Basis of Accounting' in the notes on page 55 of the financial statements which indicates that the going concern of the Company depends on future positive results and cash flows and a successful refinancing or extension of its secured bond loan of which both are affected by the uncertainties caused by COVID-19. These conditions indicate the existence of a material uncertainty which may cast significant doubt about the Company's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

The appropriateness of the going concern assumption depends on management's assessment of the future economic environment and the company's future prospects and performance. Our procedures to assess the appropriateness of management's assessment primarily consisted of:

— consideration of management's assessment of COVID-19 related of risk for the company's business and financial resources compared with our own understanding of the risks. This includes the consideration of management's plans to take action to mitigate the risks;

— assessment of the reliability of the forecasted cash flows by performing a retrospective review of previous forecasts and by comparing them to external and historical data, such as external market expectations;

— evaluation of the assumptions in respect of projected available future cash flows from operating, financing, divesting and investing activities including analyzing sensitivities of these assumptions;

— comparison of management's analysis to our assessment of the full range of reasonably possible scenarios resulting from COVID-19 uncertainty;

— inspection of supporting documentation such as contracts, confirmation extension of bond loan and correspondence with financing and other relevant parties.

Furthermore, we have evaluated the situation and uncertainties as described in the aforementioned disclosure and consider the disclosure to be adequate. However, an audit cannot predict the unknowable factors or all possible future implications for a company and this is particularly the case in relation to COVID-19.

Audit approach

Summary

Materiality

- Materiality of EUR 110,000
- 0.86% of net sales

Group audit

- 99.7% of total assets
- 100% of net sales

Key audit matters

- Valuation of goodwill
- Valuation of deferred tax assets

Opinion

Unqualified

- Material uncertainty related to going concern

Materiality

Based on our professional judgement we determined the materiality for the financial statements as a whole at EUR 110,000. The materiality is determined with reference to net sales (0.86%). We consider net sales as the most appropriate benchmark because the key stakeholders are primarily focused on net sales and less on the result before tax. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the Supervisory Board that misstatements in excess of EUR 5,500 which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

KPMG

Scope of the group audit

RoodMicrotec N.V. is at the head of a group of components. The financial information of this group is included in the financial statements of RoodMicrotec N.V.

Our group audit mainly focused on RoodMicrotec GmbH (Germany), as this is the most significant component within the group. Substantially all of the Company's business activities take place in this German component. We have made use of the work of KPMG Germany to perform the audit of the complete reporting package of RoodMicrotec GmbH. Additionally, we performed audit procedures ourselves for the significant balances recorded in RoodMicrotec N.V., the parent company.

The group audit team provided detailed instructions to KPMG Germany, covering the significant audit areas, including the relevant risks of material misstatement, and the information required to be reported back to the group audit team. We also visited our German component auditor to perform a file review and visited the Company's location in Nördlingen (Germany) where we had also meetings with local management. During the course of the audit, several telephone calls were held with KPMG Germany in which we discussed matters such as audit approach, audit findings and observations reported to the group audit team. We have taken notice of their findings with respect to RoodMicrotec GmbH and we have discussed these together with KPMG Germany with local management.

As the remaining component is a dormant entity our procedures on this component were very limited.

By performing the procedures mentioned above at group components, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion about the financial statements.

The audit coverage as stated in the section summary can be further specified as follows:

Total assets

95%
Audit of the complete reporting package

5%
Audit of specific items

Revenue

100%
Audit of the complete reporting package

KPMG

Audit scope in relation to fraud

In accordance with the Dutch standards on auditing we are responsible for obtaining a high (but not absolute) level of assurance that the financial statements taken as a whole are free from material misstatement, whether caused by fraud or error.

As part of our risk assessment process we have evaluated events or conditions that indicate an incentive or pressure to commit fraud or provide an opportunity to commit fraud ('fraud risk factors') to determine whether fraud risks are relevant to our audit. During this risk assessment we made use of our own forensic specialist.

We communicated identified fraud risks throughout our team and remained alert to any indications of fraud throughout the audit. This included communication from the group to component audit teams of relevant fraud risks identified at group level.

In accordance with the auditing standards we evaluated the fraud risks that are relevant to our audit:

— revenue recognition, specifically being the risk of manual override with respect to the cut-off of revenue in the period close to the financial year-end (the presumed risk);
— management override of controls, specifically being the risk with respect to alteration of (financial) results to meet external expectations, to maintain/increase current stock price and to meet bonus targets (the presumed risk).

Our audit procedures included an evaluation of the design and implementation of internal controls relevant to mitigate these risks and substantive audit procedures, including cut-off testing for revenue recognition close before period-end, detailed testing of high risk journal entries and evaluation of management bias.

In determining the audit procedures we made use of the Company's evaluation in relation to fraud risk management (prevention, detections and response), including the set-up of ethical standards to create a culture of honesty.

We communicated our risk assessment and audit response to management and the Supervisory Board. Our audit procedures differ from a specific forensic fraud investigation, which investigation often has a more in-depth character.

Our procedures to address fraud risks did not result in the identification of a key audit matter.

We do note that our audit is based on the procedures described in line with applicable auditing standards and are not primarily designed to detect fraud.

Audit scope in relation to non-compliance with laws and regulations

We have evaluated facts and circumstances in order to assess laws and regulation relevant to the Company. In this evaluation we made use of our own forensic specialist.

We identified laws and regulations that could reasonably be expected to have a material effect on the financial statements based on our general understanding and sector experience, through discussion with relevant management and evaluating the policies and procedures regarding compliance with laws and regulations.

We communicated identified laws and regulations throughout our team and remained alert to any indications of non-compliance throughout the audit. This included communication from the group to component audit teams of relevant laws and regulations identified at group level. The potential effect of these laws and regulations on the financial statements varies considerably:

— Firstly, the Company is subject to laws and regulations that directly affect the financial statements including taxation and financial reporting (including related company legislation). We assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items.

— Secondly, the Company is subject to many other laws and regulations where the consequences of non-compliance could have an indirect material effect on amounts recognized or disclosures provided in the financial statements, or both, for instance through the imposition of fines or litigation.

We have not identified laws and regulations where the consequences of any non-compliance could have an indirect material effect on the amounts recognized or disclosures provided in the financial statements.

We considered the effect of actual or suspected non-compliance as part of our procedures on the related financial statement items.

Our procedures to address compliance with laws and regulations did not result in the identification of a key audit.

We do note that our audit is not primarily designed to detect non-compliance with laws and regulations and that management is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to errors or fraud, including compliance with laws and regulations.

The more distant non-compliance with indirect laws and regulations (irregularities) is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it. In addition, as with any audit, there remained a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

Initial audit engagement

Initial audit engagements involve considerations in addition to recurring audits. During initial audit engagements we have to gain sufficient knowledge about the company, its business, control environment and application of accounting principles in order to perform our initial audit risk assessment and planning of audit activities.

KPMG

In response on this, we gained an understanding of the Company and its business including its control environment and accounting policies. We involved forensic, IT, real estate, valuation, actuarial and tax specialists and we have been in contact with the predecessor auditor and performed a review on their audit file. As from our appointment, we had frequent meetings with management, were in close contact with KPMG Germany during the course of the audit and visited KPMG Germany as well the Company's location in Nördlingen (Germany).

Furthermore, we gave special attention to the adequacy of the paragraphs 'Correction of errors' in the notes on pages 60 and 95 of the financial statements.

Our key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements. We have communicated the key audit matters to the Supervisory Board. The key audit matters are not a comprehensive reflection of all matters discussed.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of goodwill

Description

RoodMicrotec N.V. carries a significant amount of goodwill in the balance sheet of EUR 1.7 million (2018: EUR 1.7 million). In accordance with EU-IFRS, RoodMicrotec N.V. is required to test the amount of goodwill for impairment at least annually. The impairment test was significant to our audit due to the complexity of the assessment process and judgments and assumptions involved which are affected by expected future market and economic developments as well as the significant effect it can has on the financial statements.

Our response

We evaluated the design and implementation of controls with respect to RoodMicrotec N.V.'s impairment testing process and noted that we need to apply a substantive audit approach on this item. We challenged the cash flow projection included in the annual goodwill impairment test. Our audit procedures included, among others, the involvement of a valuation specialist to assist us in evaluating the assumptions, in particular the pre-tax discount rate, and the valuation methodology used by RoodMicrotec N.V. We furthermore assessed the appropriateness of other data used, by comparing them to external and historical data, such as external market growth expectations and by analyzing sensitivities in RoodMicrotec N.V.'s valuation model. In addition, we inspected and challenged the assumptions (e.g. growth rates, asset base, discount-and terminal growth rates) used. We specifically focused on the sensitivity in the available headroom. By doing so, we assessed management's assessment whether a reasonably possible change in key assumptions could cause the carrying amount to exceed its recoverable amount. Furthermore, we assessed the historical accuracy of management's estimates. Finally, we assessed the adequacy of the disclosure (Note 11) to the financial statements.

KPMG

Our observation

We consider management's key assumptions and estimates to be optimistic but within acceptable ranges and the disclosures (Note 11) to the financial statements are in compliance with the requirements of EU-IFRS.

Valuation of deferred tax assets

Description

At 31 December 2019, an amount of EUR 1.6 million deferred tax assets is recognized (2018: EUR 1.5 million). These deferred tax assets relate to the cumulative net operating losses of RoodMicrotec GmbH of EUR 20.8 million. The availability of future taxable income in the foreseeable future is relevant for the recognition and measurement of deferred tax assets from net operating losses. The Company uses a valuation model to determine the amount of deferred tax assets to be recognized. The assessment of future taxable income and the recognition of deferred tax assets is significant to our audit as it requires significant judgement and can have a significant effect on the financial statements.

Our response

We evaluated the internal controls that ensures an appropriate valuation of deferred tax assets and noted that we need to apply a substantive audit approach on this item. In relation to deferred tax assets our audit procedures included evaluating the Company's assumptions and estimates in relation to the likelihood of generating sufficient future taxable profits. We tested the consistency of the assumptions of the applied model with the valuation model the Company used for the annual goodwill impairment test where we involved a KPMG valuation specialist. We reconciled the input used in the valuation model with the budget which has been approved by the Supervisory Board and we assessed the assumptions such as sales growth and profit margins included in the budget and evaluated historical accuracy of management's estimates.

When auditing the deferred tax assets we used amongst others the knowledge and experience of a tax specialist of KPMG Germany to assess the amount of available net operating losses to be carried forward and the correct application of local tax legislation.

Finally, we assessed the adequacy of the disclosure (Note 12) to the financial statements.

Our observation

Overall we assess that the assumptions applied as balanced. The group's disclosures related to the deferred tax assets as set forth in Note 12 to the 2019 financial statements are in compliance with the requirements of EU-IFRS.

Report on the other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information. Additionally, other information also includes the remuneration report.

Based on the following procedures performed, we conclude that the other information:

— is consistent with the financial statements and does not contain material misstatements; and
— contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is less than the scope of those performed in our audit of the financial statements.

The Board of management is responsible for the preparation of the other information, including the information as required by Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Engagement

We were engaged by the General Meeting of Shareholders as auditor of RoodMicrotec N.V. on 26 November 2019, as of the audit for the year 2019. The audit 2019 was our first year's audit.

No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audits of public-interest entities.

Description of responsibilities regarding the financial statements

Responsibilities of the Board of Management and the Supervisory Board for the financial statements

The Board of Management is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, the Board of Management is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, the Board of Management is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Board of Management should prepare the financial statements using the going concern basis of accounting unless the Board of Management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. The Board of Management should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

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 financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

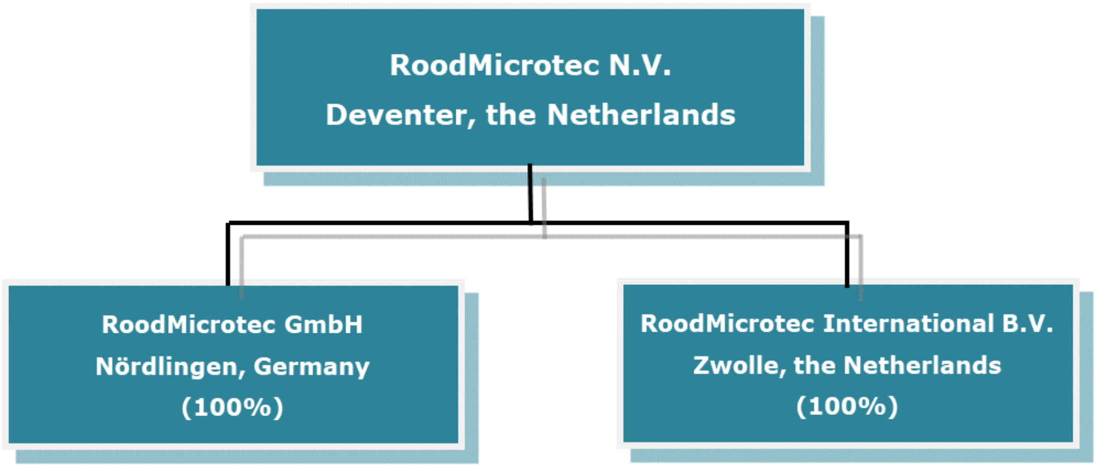
A further description of our responsibilities for the audit of the financial statements is located at the website of de 'Koninklijke Nederlandse Beroepsorganisatie van Accountants' (NBA, Royal Netherlands Institute of Chartered Accountants) at: http://www.nba.nl/ENG_oob_01. This description forms part of our auditor's report.

Eindhoven, 10 June 2020

KPMG Accountants N.V.

M.J.A. Verhoeven RA

GROUP STRUCTURE



ADDRESSES AND PERSONAL DETAILS

RoodMicrotec N.V.
Zutphenseweg 29 D1
7418 AH Deventer, The Netherlands
Telephone: +31 (0) 570 745623
Email: investor-relations@roodmicrotec.com
Website: www.roodmicrotec.com

Board of Management
Martin Sallenhag, CEO
Arvid Ladega, CFO

RoodMicrotec GmbH
Oettinger Strasse 6
86720 Nördlingen, Germany
Telephone: +49 (0) 9081 804-0

Motorstrasse 49
70499 Stuttgart, Germany
Telephone: +49 (0) 711 86709-0

RoodMicrotec International B.V.
'Rembrandt', Dokter van Deenweg 58
8025 BC Zwolle, The Netherlands
Telephone: +31 (0) 570 745623

RoodMicrotec N.V.
Zutphenseweg 29 D1
7418 AH Deventer, The Netherlands
Telephone: +31 570 745623
E-mail: investor-relations@roodmicrotec.com
Website: www.roodmicrotec.com

Chamber of Commerce number 33251008103

ABBREVIATIONS USED

AFM	Netherlands Authority for the Financial Markets
AI	Artificial Intelligence
ASIC	Application Specific Integrated Circuit
ATE	Automatic Test Equipment
BCS	Business Cluster Semiconductors
CAGR	Compound Annual Growth Rate
COTS	Components Of The Shelf
COVID-19	Corona Virus Disease 2019
DPA	Destructive Physical Analysis
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interests, Taxes, Depreciation and Amortization
EBT	Earnings Before Taxes
FIB	Focused Ion Beam
FTE	Full Time Employee
FVOCI	Fair Value through Other Comprehensive Income
FVPL	Fair Value through Profit and Loss
GaN	Gallium Nitride-on-Silicon wafers
HiRel	High Reliability
IC	Integrated Circuit
IDM	Integrated Device Manufacturer
IFRS	International Financial Reporting Standards as adopted by the European Union
IoT	Internet of Things
IMF	International Monetary Fund
IP	Intellectual Property
LED	Light Emitting Diode
MEMS	Micro-Electro-Mechanical System
OCI	Other Comprehensive Income
OECD	Organization for Economic Co-operation and Development
OEM	Original Equipment Manufacturer
PCB	Printed circuit board
PwC	Pricewaterhouse Coopers
ppb	Parts per billion
ppm	Parts per million
QM	Quality Management
RF	Radio frequency
RFID	Radio Frequency IDentification
SCM	Supply Chain Management
SIA	Semiconductor Industry Association
TEM	Transmission electron microscopy
V2I	Vehicle-to-Infrastructure
V2V	Vehicle-to-Vehicle
VCSEL	Vertical-Cavity Surface-Emitting Laser diodes
Wft	Financial Supervision Act
WLCSP	Wafer Level Chip Scale Package
WSTS	World Semiconductor Trade Statistics

RoodMicrotec N.V.

Zutphenseweg 29 D1
7418 AH Deventer. The Netherlands
Phone. +31 570 745623
Email: investor-relations@roodmicrotec.com

RoodMicrotec GmbH

Oettinger Strasse 6
86720 Nördlingen, Germany
Phone. +49 9081 804-0
Email: info@roodmicrotec.com

RoodMicrotec GmbH

Motorstrasse 49
70499 Stuttgart, Germany
Phone. +49 711 86709-0
Email: info@roodmicrotec.com

ANNUAL REPORT 2019

RoodMicrotec

www.roodmicrotec.com

10th June 2020