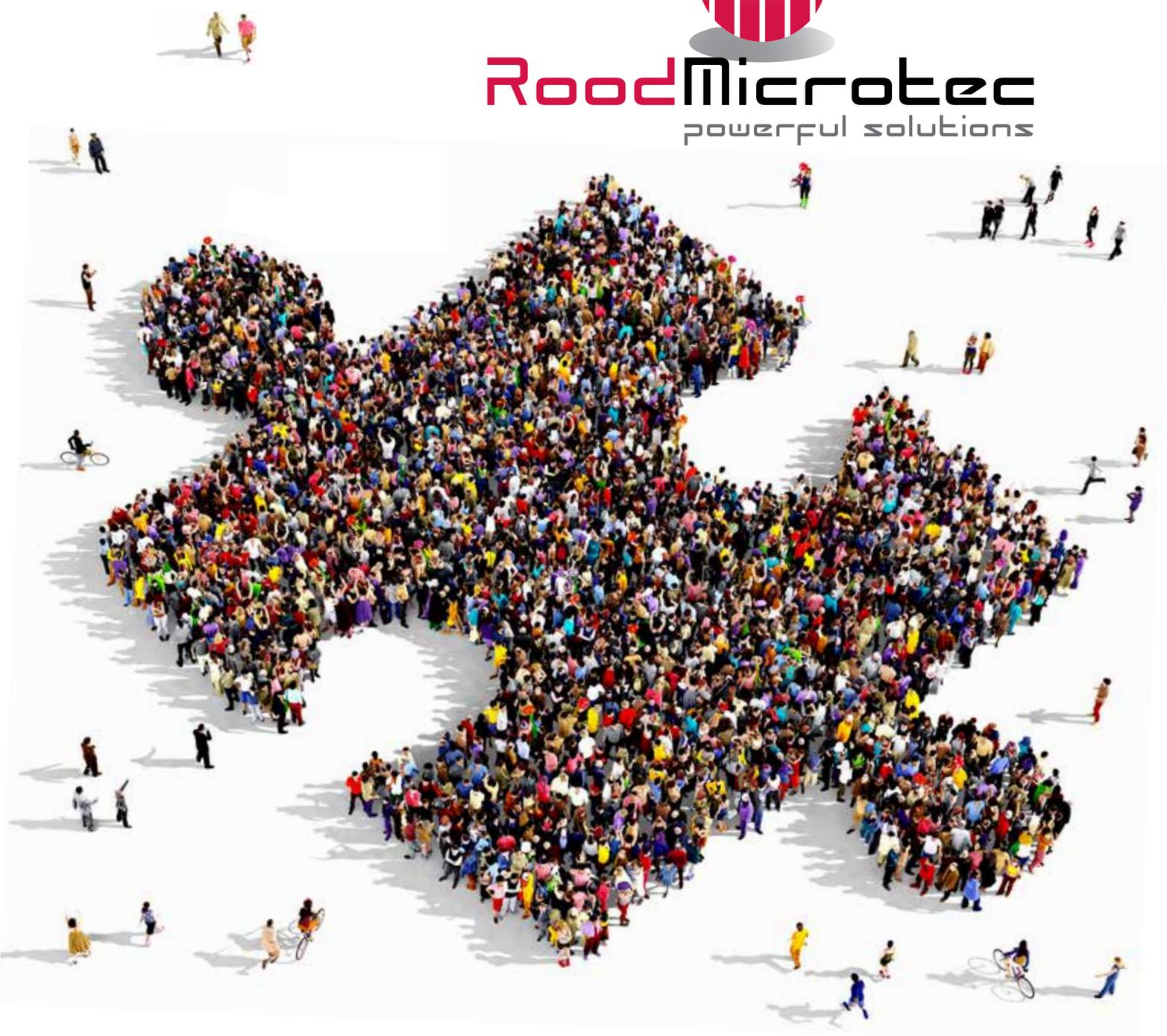




**RoodMicrotec**  
powerful solutions



2015

RoodMicrotec brings success to its partners

## RoodMicrotec brings success to its partners

RoodMicrotec's focus is on eXtended supply chain management (SCM), offering ASIC turnkey solutions for the industrial and automotive markets. In that, it is vital to collaborate closely with design houses, suppliers, foundries, institutes, customers and other related parties. In this process, in which the partners are to some extent interdependent, RoodMicrotec's eXtended SCM ensures the weakest link is as strong as possible - this is exactly what turnkey solutions are all about. But it is also about achieving more: that is why we all put our best efforts into and we all feel responsible for the whole project as well as for the different disciplines within the project. This applies to both the internal business units (SCM, test operations, test engineering, failure & technical analysis and qualification & reliability) and to the external parties.

RoodMicrotec has strengthened the relationship with its main customers and design house partners during 2015. Our customer base consists of major industrial and automotive companies throughout Europe; one of them, Inova, gives its view on the collaboration with RoodMicrotec in this business report. The growing role of design houses is also very important in this market since the end customers need to have someone who can realise their ideas with high reliability and within a short time schedule. The market for these companies is growing and RoodMicrotec has relationships with some major companies in Europe.

Our relationships with suppliers and institutes are also essential to realise turnkey projects. RoodMicrotec has excellent cooperation agreements in this context with assembly houses and wafer foundries in Asia as well as in Europe. One of the major European wafer foundries, X-FAB, recounts its experiences of the cooperation with RoodMicrotec in this report. Institutes are important to be able to be at the forefront of technology and to have access to additional resources and ideas in the realisation of turnkey projects. RoodMicrotec has agreements with many institutes in Europe; the Fraunhofer Institute for Integrated Circuits IIS gives its view elsewhere in this report.

RoodMicrotec is well positioned to offer eXtended SCM turnkey solutions to the industrial and automotive markets and is convinced that this is the way to bring success to all partners.



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**RoodMicrotec N.V.**  
**Business Report 2015**

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Chamber of Commerce number 33251008

# GENERAL

## PREFACE BY THE CEO

### RoodMicrotec brings success to its partners

The message I would like to give to you is that RoodMicrotec has succeeded in 2015 to make concrete progress on the path it has chosen. We have achieved many positive structural developments.

### Highlights 2015

By focusing on long-term projects, we are securing more predictable and stable recurring revenue. In addition, by working in a more project-based fashion, we have also improved our internal organisation. Midway through 2015 we were able to announce our first big contract of EUR 25 million over a period of 10 years. It was followed by other major contracts, also with a ten-year duration, which are described elsewhere in this report. With these contracts, we are increasingly positioning ourselves as an important and invaluable link in the supply chain.

It has been said before, but I want to reiterate: these contracts sometimes have lead times that take several years, but they do provide us with a stable basis. In view of the positive developments in 2015, I am confident that we have made the right choice.

### New customers / new business

We have managed to attract a number of new customers, and gained new business from existing ones. With the latter, I mean that we are now providing new services to these existing customers. For example, if we used to only do testing, and we are now also doing industrialisation and packaging for a customer, this is what we consider new business.

The order of EUR 25 million I mentioned is our biggest order in terms of volume ever in the automotive sector, but it still 'only' comprised 10% of the total number of orders.

### Automotive Competence Centre

The Automotive Competence Centre, founded in 2014, in 2015 gained a reputation in the automotive sector as a qualified and reliable partner. The importance of this cannot be understated, because the requirements of the automotive sector are very strict indeed. The reputation we have gained here as a serious partner will spill over into other sectors.

### Collaboration

For RoodMicrotec as a relatively small player, it is of the utmost importance to be highly visible and to be seen as an important link in the entire chain. That is why I am delighted that we have been able over the past year to strengthen our collaboration with various parties, including Fabless Companies, foundries and suppliers.

They are increasingly seeing us as an important player, so that we are more strongly anchored in the chain. I am very grateful that Inova, X-FAB and the Fraunhofer Institute for Intergrated Circuits IIS have also contributed to our report.

### Publicly funded projects

By taking part in two publicly funded projects (ParsiFAL 4.0 and ScaleIT@Shopfloor) in the area of Industry 4.0 we can gain expertise in new fields and improve our knowledge in our own field. In both projects we are part of a consortium of big name organisations, both private companies and public institutions. This will further enhance our name recognition and market position.

### Market developments and opportunities for RoodMicrotec

The speed at which technological developments follow each other is mind boggling. Whereas not long ago we were stunned by remote control power locks on car doors, nowadays RoodMicrotec contributes and supports leading companies that produce for example self driving cars.

We are now at the dawn of the fourth industrial revolution: Industry 4.0. Now, everything is being connected in networks in which smart products and the smart machines that make them can communicate with each other. This makes it possible for example for the machines to monitor production and decide on the required production speed and volume.

All these technological innovations are driven by modern electronic devices, which therefore are the growth engine of the semiconductor industry.

The publicly funded projects in which RoodMicrotec is a partner are fully focused on Industry 4.0 applications. In this way, we are gaining a great deal of knowledge and experience and putting ourselves on the map in this new field.

## New employees and succession

We have succeeded in strengthening crucial positions in our team, so we are now in a better position to conclude long-term contracts and handle the project management of them.

Elsewhere in this report you can read contributions from three new employees.

We have also welcomed Martin Sallenhag, currently CTO. He and Reinhard Pusch, currently CSO, are my intended successors. They will become CEO/CTO and COO/CSO respectively on 7 June 2016.

As of this date they will be responsible for the daily management.

Erwin Vrielink joined us on 1 November 2015 as our new CFO.

I feel this is a good time to pass the baton to the new Management Team and I have full confidence in them. They know the industry through and through and they have the right capabilities to take RoodMicrotec to a new level.

I would like to thank all our employees for their hard work and dedication in 2015, and indeed throughout my tenure as CEO.

## New auditor

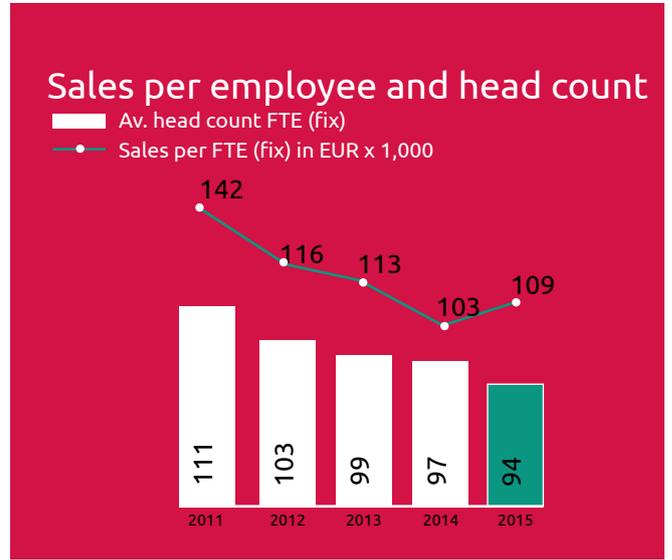
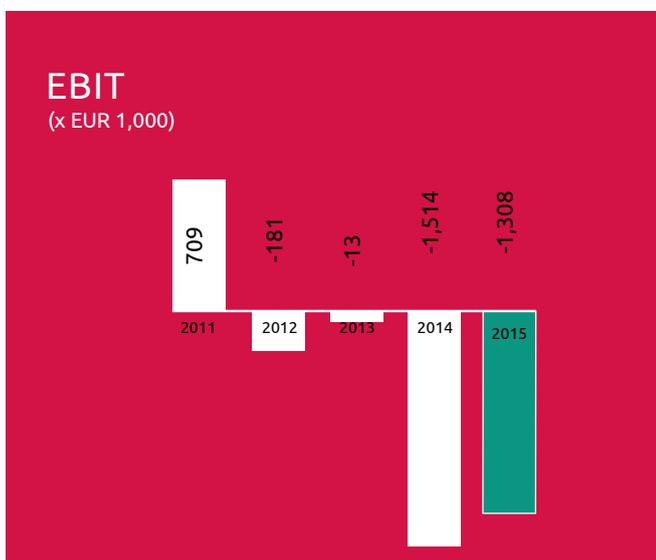
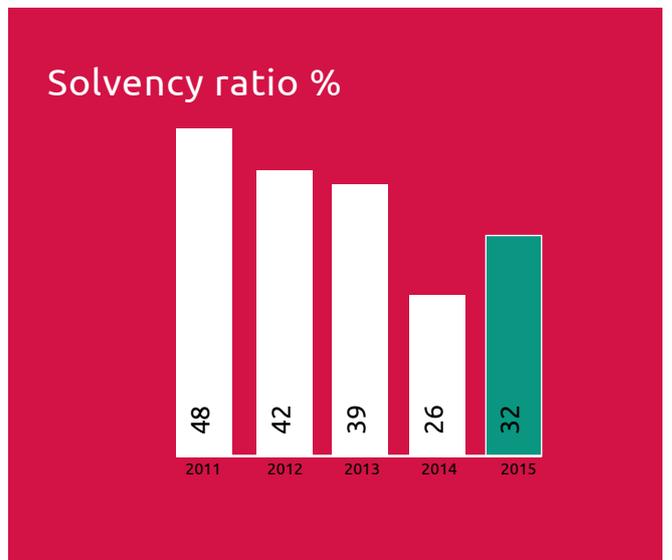
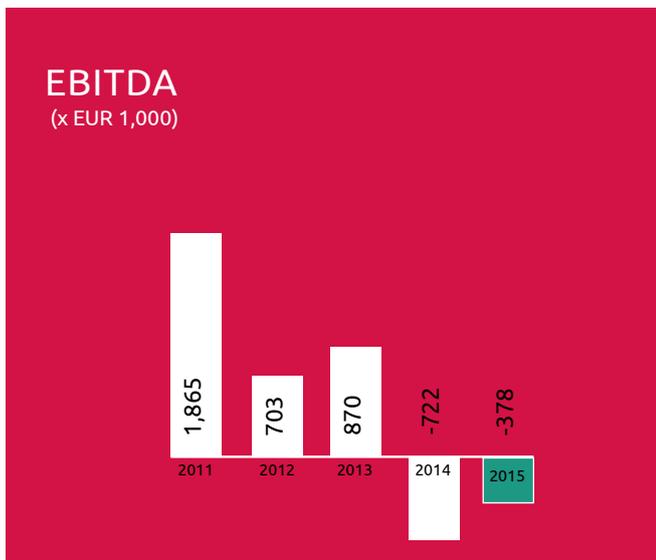
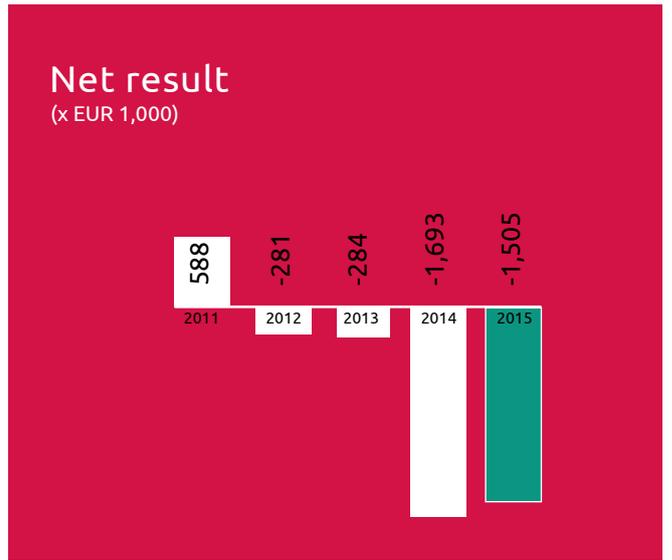
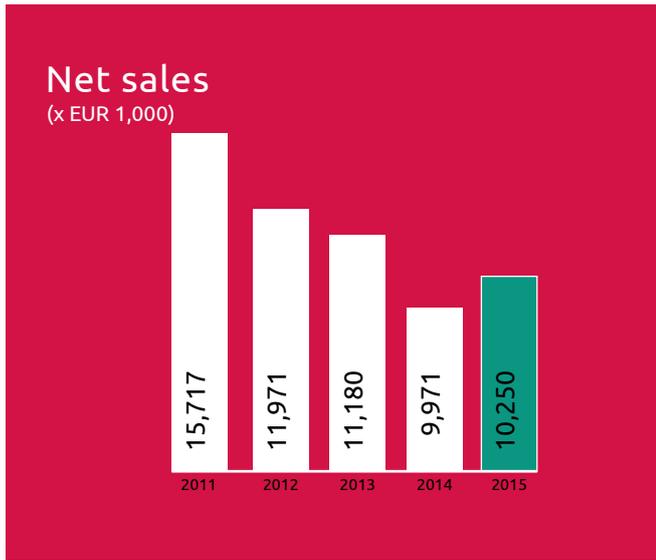
After a disappointing experience with Grant Thornton for the annual report on 2014, we have decided not to continue our collaboration.

For the 2015 annual report we have hired Baker Tilly Berk as our new auditor.

Zwolle, 26 April 2016

Philip Nijenhuis, CEO

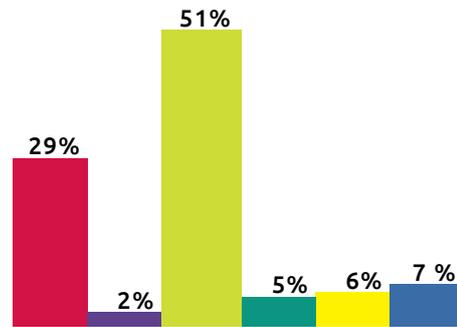
# ROODMICROTEC IN 2015



# KEY CHARTS

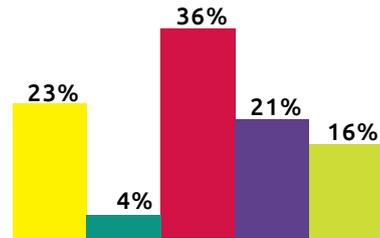
## Revenue by Markets 2015

Automotive	3,021	29%
Telecommunication	211	2%
Industrial/Medical	5,201	51%
Data Processing	551	5%
Consumer	598	6%
HiRel/Space	668	7%



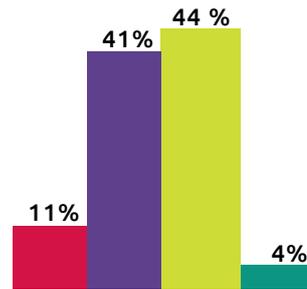
## Revenue by Business Units 2015

SCM	2,348	23%
Test Engineering	437	4%
Test&EOL	3,676	36%
Q&R	2,134	21%
Failure Analysis	1,655	16%



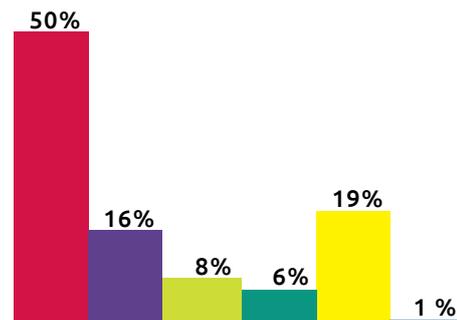
## Revenue by Customer type 2015

IDM	1,119	11%
OEM	4,174	41%
Fabless, IP, Provider, SCM	4,478	44%
Disti, CEM, OSH	0,479	4%



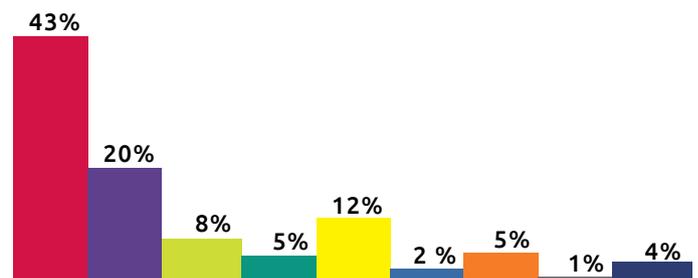
## Costs by Category 2015

Personnel costs	50%
Cost of sales	16%
Depreciation	8%
Buildings & Energy	6%
Other expenses	19%
Financial Expenses	1%



## Revenue by Country 2015

Germany	43%
Switzerland	20%
Austria	8%
UK	5%
Benelux	12%
France	2%
Eastern/Southern Europe	5%
Scandinavia	1%
China, India & Rest of Asia	4%



## KEY FIGURES

31 December 2015

(x EUR 1,000)

	IFRS 2015	IFRS Revised 2014	IFRS 2013	IFRS 2012	IFRS 2011
<b>Result</b>					
Net sales	10,250	9,971	11,180	11,971	15,717
Gross margin	8,384	8,184	9,021	9,688	12,342
EBITDA	-378	-722	870	703	1,865
EBIT (operating result)	-1,308	-1,514	-13	-181	709
EBT	-1,495	-1,675	-243	-507	408
Cash flow (net result and depreciation)	-575	-901	599	603	1,744
Cash flow from operating activities	-832	-246	17	899	1,939
Net result	-1,505	-1,693	-284	-281	588

### Capital, Debt & Liquidity Ratios

Total assets	13,531	13,475	13,941	12,915	12,857
Group equity	4,321	3,564	5,396	5,457	6,139
Net debt	1,675	2,159	2,113	3,216	2,686
Capital (net debt + equity)	5,996	5,723	7,509	8,173	8,824
Gearing ratio (net debt/ capital)	28%	38%	28%	37%	30%
Solvency (group equity / total liabilities)	32%	26%	39%	42%	48%
Debt ratio (net debt / EBITDA)	-4.43	-2.99	2.43	4.57	1.44
Net working capital	560	-125	-1,331	-1,422	-831
Working capital ratio	1.27	0.95	0.68	0.63	0.79

### Assets

Tangible and intangible fixed assets	6,908	7,112	7,187	8,102	7,515
Investments in (in)tangible fixed assets	726	499	535	1,475	1,024
Depreciation of (in)tangible fixed assets	930	792	883	884	1,156

### Data per share (x EUR 1,-)

Group equity	0.08	0.08	0.14	0.15	0.17
Operating results	-0.02	-0.03	0.00	-0.01	0.02
Cash flow	-0.02	-0.00	0.00	0.03	0.05
Net result	-0.03	-0.04	-0.01	-0.01	0.02
Share price: year end	0.27	0.25	0.16	0.15	0.16
Share price: highest	0.30	0.35	0.18	0.23	0.31
Share price: lowest	0.21	0.15	0.14	0.15	0.14

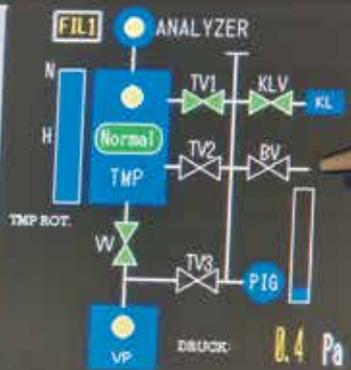
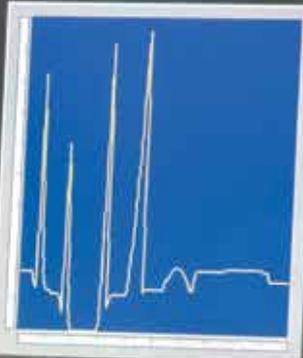
### Issue of nominal shares

At year end (x 1,000)	54,411	43,519	38,674	35,769	35,769
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### Number of FTEs (permanent)

At year end	92	94	96	103	106
Average	94	97	99	103	111

Sales (total)/ Average FTE's (permanent)	109	103	113	116	142
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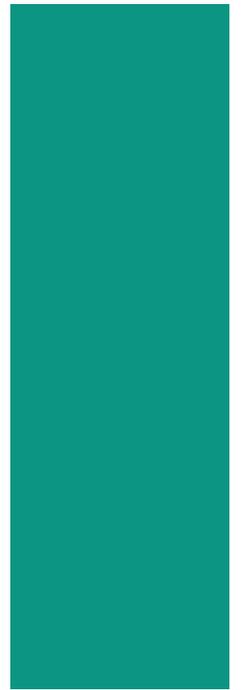
ANALOG AUSGANG

1.7  $V \cdot 10^2$  R

- TONERQUELLE
- ION. SPANNUNG 234.1 VDC
- FOCUS SPANNUNG 166.8 VDC

JUSTIERE FOCUS SPANNUNG

STOP



## MAIN DEVELOPMENTS

### Two large contracts in automotive sector

We concluded two large contracts in the automotive sector, one representing approx. EUR 25 million over 10 years, the other representing approx. EUR 20 million, also with a 10-year term.

### Contract with OEM (Original Equipment Manufacturer)

A contract for 10 years with a sales volume over this life cycle of approx. EUR 9 million to engineer a new product (chip).

### Collaboration agreements with leading design houses in Europe

This concerns agreements with Europe's leading and most successful Fabless Companies, for which we will provide both industrialisation and backend manufacturing services.

### Strengthened relationship with large players

We strengthened our relationship with main assembly houses, important European design houses and foundries throughout the world. All top global players.

### Two publicly funded projects

We achieved partnerships in two publicly funded projects. The consortiums consist of well-known institutes and companies. Both projects are in the field of Industry 4.0.

### Number of new orders according to automotive standard AEC-Q100

Stress test qualification for integrated circuits in the automotive sector. This confirms our strong performance in this field.

## ROODMICROTEC AT A GLANCE

- RoodMicrotec is a semiconductor company supplying products (chips and packaged devices) and services to its focus sectors.
  - RoodMicrotec manages the entire ASIC supply chain turnkey.
  - RoodMicrotec is increasingly focusing on consultancy, product engineering, project management and logistics.
  - As an independent company RoodMicrotec is never in competition with its customers.
  - The company is knowledge and technology driven.
  - 'Certified by RoodMicrotec' refers inter alia to qualification of products to stringent international standards such as the ISO/IEC 17025 in our accredited laboratory.
  - RoodMicrotec's key values are:
    - knowledge
    - flexibility
    - creativity
- All within the stringent framework of the processes of its customers in inter alia the automotive industry.
- At year-end 2015, the company had 94 (2014: 97) full-time employees (FTE).
  - In 2015, the company realised EUR 10.3 million sales (2014: EUR 10.0 million).

### We focus on

#### Automotive

- Electronic components for vehicle applications are a global driver of the semiconductor industry.
- Automotive devices are a combination of high complexity, high quality demands and high volumes: car infotainment and communication with the outside world up to self-driving cars.
- We are fully equipped with the fundamentals required for automotive projects.
- We concluded two contracts in the automotive sector.



#### Industrial

- In this sector the main focus is on Industry 4.0 / Internet of Things.
- Industry 4.0 / Internet of Things means extensive networking, using innovative IT systems which enable entirely new production methods, like smart grid and smart metering. For example starting an oven remotely, opening and shutting down windows when the temperature changes, etcetera.
- We develop (complex) solutions and are a partner in two publicly funded projects: ParsiFAL 4.0 and ScaleIT@Shopfloor.



## Healthcare



- Healthcare applications combine high quality demand and device complexity.
- Distinction between devices inside and outside the body, sometimes with a physical connection between the internal and external devices.
- Projects with long lead times due to complex test environments, which contain a number of biological elements such as temperature, humidity, acidity and heart rate.
- Our experience with image sensors offers excellent opportunities.
- We are working with partners on future solutions.

## HiRel/Aerospace



- Space exploration, solar sensors for satellites, radio applications in (military) aviation.
- Very high quality and reliability demands.
- Long lead times and low volumes, but very high commercial value.
- We are working in a wide range of projects, mainly in Europe. For example, we are involved in a project on solar sensors for satellites.

## Customer categories

Our main focus is on OEMs (Original Equipment Manufacturers) and Fabless Companies.

**OEMs** are becoming ever leaner and are contracting out their non-core activities, including semiconductor manufacturing facilities. It is vital for them to have a continuous supply of reliable highly qualified chips. They also often require tailored solutions. We are uniquely qualified to meet this requirements. Protection of specific features of their products may play an important role.

**Fabless Companies**, which are among the fastest growers in the industry, are even more motivated to protect their know-how. As a service provider, we are never in competition with Fabless Companies, so their intellectual property is maximally protected.

## Our business units

### Supply Chain Management



RoodMicrotec provides comprehensive services, from the beginning of the development process (together with design partners), all the way up to delivery to its customers, including engineering support, test engineering, wafer test, assembly (through partners), final test, qualification and reliability, failure and technology analysis and logistics.

RoodMicrotec handles the complete (turnkey) industrialisation of ASICs from GDSII data up to the final product including all automotive-specific Quality Assurance activities.



### Legend:



## Test Engineering



Complete test solutions for a wide range of devices like mixed-signal, digital, analogue or RF ICs. Characterisation, production and qualification to the highest standards as required by the automotive and high-reliability sectors.

Extensive know-how on several test platforms.

## Test & End-of-line Services



Covers the complete semiconductor segment, with focus geared towards wafers and semiconductor component tests. The customers include OEMs, Fabless Companies, distributors, IDMs and other customers in the automotive, industrial, healthcare, telecommunications and HiRel markets.

## Qualification & Reliability



Electrical/electronic qualification of customer components under extreme conditions such as climatic and temperature changes as well as vibration and mechanical shock.

Optical and mechanical qualification focuses on image sensors (digital photography, high speed image processing, X-ray technology) and on mechanical investigations of semiconductors on boards.

## Failure & Technology Analysis



RoodMicrotec's extensively equipped failure & technology analysis laboratory is capable of providing failure, construction and qualification-related analysis of all kinds of electronic parts like wafers, integrated circuits, discrete components, electromechanical components, printed circuit boards and complete printed board assemblies.

## Our competence centre

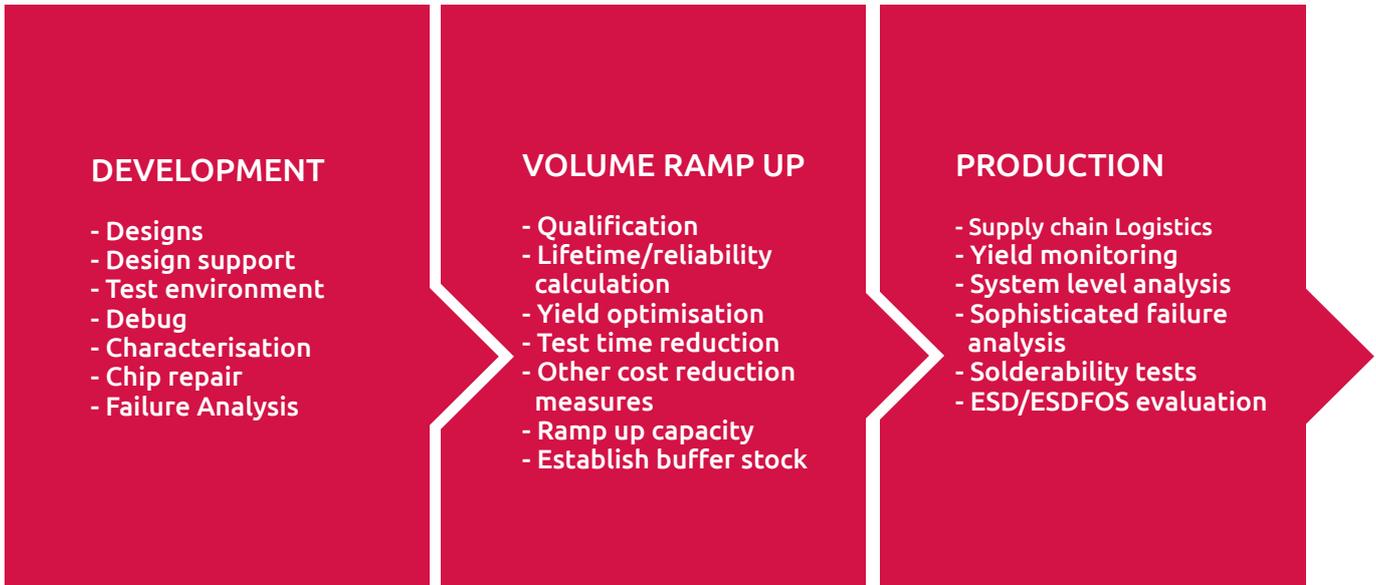
### Automotive Competence Centre (ACC)



Our 'virtual' ACC team consists of members of different business units with the goal to strengthen knowledge within the company and market it as a service.

This team is fully equipped with the fundamentals required for automotive projects.

## Our services for the product life cycle



# SHAREHOLDER INFORMATION

## Listing

RoodMicrotec N.V. is a public limited liability company with its registered office in Zwolle, the Netherlands and has a listing on the Euronext Amsterdam Stock Exchange since 1986 for shares and warrants:

- Shares, ISIN CODE : NL0000440477
- Warrants series I, ISIN CODE: NL0010611406, exercisable until 7 October 2016, exercise price EUR 0.15
- Warrants series II, ISIN CODE: NL0010938130, exercisable until 8 January 2016, exercise price EUR 0.13
- Warrants series III, ISIN CODE: NL0011556972, exercisable until 31 December 2018, exercise price EUR 0.21

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

## Major Holdings in Listed Companies Disclosure Act

As at December 2015 RoodMicrotec has received the following reports 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
Kuikens B.V./ M.H.B. Kok	11.21%	2 May 2014
Ph.M.G. Nijenhuis	5.79%	1 October 2015
G. Schaaïj	5.75%	26 August 2014
P.C. van Leeuwen	5.48%	2 November 2015
Sitimo Ltd	3.71%	1 September 2015

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

Position as at 1 January 2015	Position as at 31 December 2015
43,519	54,411

At 31 December 2015, the company held 4,100 of its own shares (2014: 4,100).

## 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 Wft (Financial Supervision Act) 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 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 allow the company to grow and further improve its financial health over the next few years. The management prefers to use the company's own resources to finance growth, 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 investors. The Board of Management proposes in view of the negative results not to distribute any dividend for the 2015 financial year. Our priority is balanced debt management without jeopardising growth.

## Investor relations

We are well aware of the importance of active 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 press, analysts and investors.

High on the agenda for this year and the next few years is intensifying the communication with our shareholders and bondholders. This is partly in view of our bond loan issue in 2014, which has raised the number of stakeholders in RoodMicrotec greatly. In this context, we are organising meetings for our shareholders and bondholders when expedient.

As in 2015, we will raise our profile in 2016 by organising 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 also focus more on publicity. Communication with the various target groups is effected through the company's website, [www.roodmicrotec.com](http://www.roodmicrotec.com), and our newsletter.

## Liquidity provider

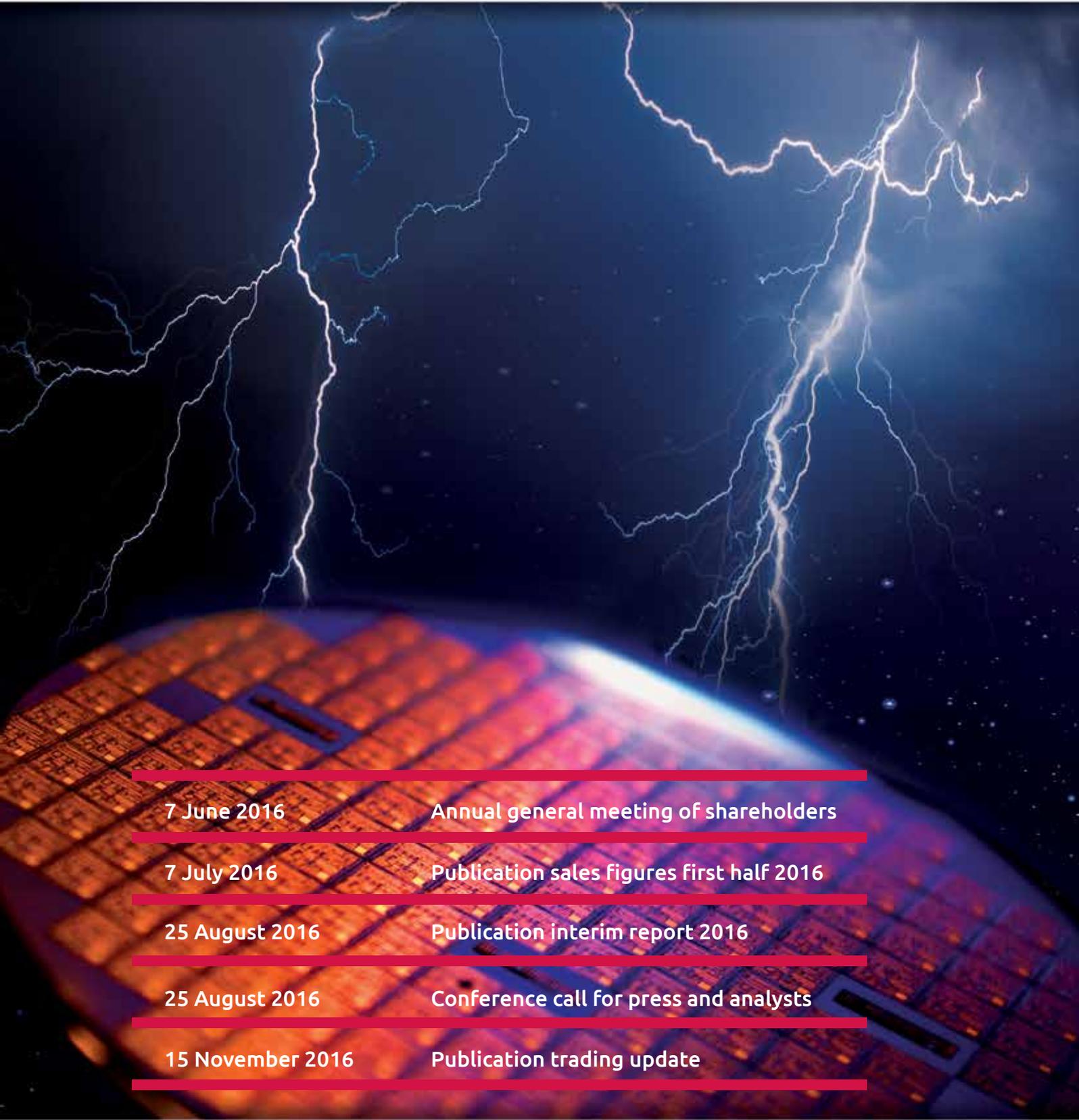
In order to promote trade in the RoodMicrotec N.V. share and to optimise the company's relationship with its shareholders, SNS Securities N.V. in Amsterdam has been engaged as liquidity provider.

## Analysts

The company does not pay fees to analysts for preparing reports; analysts' reports are evaluated only for factual inaccuracies.

## Annual general meeting of shareholders 2015

The report of this meeting may be inspected on the website.



7 June 2016	Annual general meeting of shareholders
7 July 2016	Publication sales figures first half 2016
25 August 2016	Publication interim report 2016
25 August 2016	Conference call for press and analysts
15 November 2016	Publication trading update

# 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 rationalise their operations. Such activities would be supply chain management (SCM), testing, assembly and engineering.

Rapid technological innovation 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 automation, 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 and hybrids, autonomous driving and car-to-car communication.

The developments described above will create a market for specialised service providers focusing on supporting leaner OEMs and Fabless Companies. We are such a specialised 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.

## SWOT ANALYSIS

### Strengths:

- A leading position as SCM partner for OEMs and Fabless Companies in Europe within the automotive and industrial sectors.
- Highly experienced, excellent knowledge, flexible and creative.
- Customer know-how is very well protected.
- Open for partnerships and collaboration throughout the whole supply chain.
- Positive balance sheet ratios.
- State-of-the-art equipment.

### Weaknesses:

- Size of the company.
- No presence outside Europe.
- Limited brand awareness.
- Poor financial net result.
- Cash position.

### Opportunities:

- Growing importance of technological applications and technology based connectivity.
- Long-term contracts in our focus sectors.
- Consortiums created in order to develop new technologies and applications.
- Publicly funded projects.
- Growing automotive and industrial markets.

### Threats:

- Projects delayed by customers.
- The risk that the development of new products also moves to Asia.
- Semiconductor production in Europe will continue to decline.
- The cyclical nature of the semiconductor market.
- The tight labour market for highly qualified specialised personnel.

## Targets

### Quantitative

- Sales growth  
Sales growth allows us to invest in the expert knowledge in the company and so bring about essential cost reductions.
- Our long-term objective is a substantial growth in turnover, whereby we expect that in 2020 our turnover will approximately be 75% higher compared to the total turnover of over EUR 10 million in 2015.
- EBITDA to rise to at least 10-15% of sales
- Working as we do in a high-tech environment, investments in production equipment and innovation are vital in order to be able to provide the desired technological solutions.
- EBIT to rise to 5-10% of sales
- EBIT is the benchmark for the profitability of our operations. It is highly dependent on the internal efficiency of the company. We therefore strive to continuously optimise our operations.
- Net result of between 4% and 10% of sales  
This will only be achieved if we raise production volumes, sales and efficiency.
- Solvency of between 38-50%  
A strong solvency ratio helps us to strengthen confidence among customers, to guarantee continuity, to obtain loans and secure growth.
- Working capital of a gross margin between 1.0 and 1.5  
As a service provider and project organisation, working capital 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.
- Debt ratio between 1.0 and 4.0  
The debt ratio (net interest bearing debt divided by EBITDA) 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.

### Qualitative

- To 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. This will bring us far more predictable and stable recurring revenues.
- To improve brand awareness of RoodMicrotec.  
Being a relatively small company is not a problem as long as the company is well known and recognised in the market.

- To be an important player in the fourth industrial revolution (Industry 4.0) 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 can achieve this by holding on to our key values (knowledge, flexibility and creativity). This is how Industry 4.0 works.

### Strategy

- We will focus on automotive and industrial markets to grow further in both sectors.
- We will continue to work with Fabless Companies to show that RoodMicrotec is a competitive SCM partner and encourage them to strengthen the partnership with our company.
- We will continue to work with OEMs to show that RoodMicrotec can offer competitive eXtended SCM in conjunction with design companies.
- We will continue to look for smaller, faster turnaround opportunities in Failure Analysis, Quality & Reliability and Test.
- We will continue to strengthen our internal quality system through certification according to the new 2015 version of ISO 9001 with focus on risk assessment, which is especially important for automotive customers.

The above points will result in a good combination of long-term contracts with long lead times and short-term orders with short lead times. Certainly for the next 4 to 5 years we will also need short-term orders to generate cash flow.

In the meantime we will continue to focus on concluding long-term contracts, which will bring much more predictable and stable recurring revenues and make us the supply chain specialist.

- To strengthen our technical position for automotive, industrial, Industry 4.0 and IoT we will invest in new high-tech equipment.
- To 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 and thereby generate more and higher sales.
- To strengthen relationships with customers, suppliers and appropriate partners (foundries, assemblers, design houses, software houses). This will make us stronger as well as a better known and important player.
- Continuous training with focus on development of new technologies and special requirements from the market, e.g. standard requirements for automotive.
- To strengthen our brand awareness in the market by organising seminars on qualification, failure analysis, outsourcing and supply chain activities.

## BOARD OF MANAGEMENT



### Philip Nijenhuis, CEO

Born: 1945  
 Study Mechanical / Industrial Engineer (Technical University Eindhoven)

6 years	Wavin:	Logistic Manager
6 years	Scania:	Operations Manager
2 years	ITT / Alcatel:	General Manager
2 years	AT Kearney:	Manager
6 years	Schlumberger RPS:	Director Operations (COO)
4 years	Data & Telecom Services:	Managing Director
5 years	Besi Molding (Fico):	Managing Director

## MEMBERS OF CORPORATE MANAGEMENT TEAM

### Reinhard Pusch, Vice President and CSO

Born: 1953  
 5 years SEL: Development Engineer, Qualification Laboratory  
 9 years SEL: Team Manager Qualification Optoelectronic Components  
 6 years SEL: Team Manager OPTO Support  
 4 years SEL: Technical Component Manager  
 3 years SEL: Department manager Optical Interconnection + Qualification  
 2 years SEL: Manager Alcatel Technology Center  
 4 years microtec: General Manager



### Martin Sallenhag, CTO

Born: 1968  
 Master of Science Electrical Engineering, Lund University, Sweden

5 years	Ericsson Mobile Phones:	Project Leader, Mixed Signal ASICs
4 years	Ericsson Mobile Phones:	Technical Manager, Mixed Signal ASICs
1 year	Axis Communications:	Development Manager, Mobile Internet
2 years	Dialog Semiconductor:	Director, Applied Technology
3 years	Dialog Semiconductor:	Director, Product Marketing
5 years	Digital Imaging Systems:	VP Engineering
3 years	Samsung Electronics:	VP and General Manager



### Erwin Vrielink, CFO

Born: 1973  
 Postgraduate Auditing, Nyenrode Business University, Breukelen.

9 years	Deloitte, Audit manager
1 year	Philips head office: Senior accounting & reporting specialist
4 years	Sparta: Controller
3 years	Accell Group head office: Manager audit & IFRS



# REPORT OF THE BOARD OF MANAGEMENT

## DEVELOPMENTS WITHIN ROODMICROTEC

Our total sales increased by 3% despite the somewhat negative development of the global semiconductor industry. Total industry sales worldwide were US\$ 335.2 billion in 2015, a slight decrease of 0.2 percent compared to the 2014 total, which was the industry's highest ever sales total. Fourth quarter sales of US\$ 82.9 billion were 5.2 percent lower than the total of US\$ 87.4 billion from the fourth quarter of 2014.

Although our total sales of EUR 10.3 million (2014: EUR 10.0 million) were lower than expected, 2015 was also a year marked by many positive developments. The order value increased in the beginning of 2016 by more than 40% compared to early 2015.

The quote portfolio remains on a high level and a major part of the offers are converted into orders (hit rate). In 2015, the book-to-bill ratio was above 1.0 in all quarters, and the average for the full year improved to 1.2 (2014: 1.1).

Our strategic move to larger and long-term projects is yielding more predictable and recurring sales. In 2015 we succeeded in concluding a number of long-term contracts with reputed companies in our focus sectors. One of our top 3 customers is among the top 500 fastest growing and most innovative companies in Germany.

While we have talked of 'orders' in recent times, the term 'contract' would be more accurate. A contract is concluded for a specific period and for a certain estimated volume. During the term of the contract we receive specific orders for work to be performed by us, which we subsequently invoice.

A contract starts with an order for engineering (i.e. pre-production), in which we already send invoices for work completed, but these concern relatively small amounts. When this phase is completed, actual production starts. In this phase turnover will vary, but is expected to rise year-on-year.

On average, we estimate that each contract concluded so far will generate at least EUR 1 million recurring revenue per year.

### Automotive

In 2014 we decided to set up our Automotive Competence Centre in order to be able to offer new services that are required and expected for automotive projects.

Our main objectives were to:

- act as an expert first point of contact for automotive customers wishing to subcontract individual services such as component qualification, or searching for a component manufacturer to develop a new component and deliver it – under agreed accountability – to the corresponding customer's site;

- offer full quality assurance, from quality planning and component release through to customer feedback/ complaints processing in cooperation with all competence centres at RoodMicrotec and – as required – any partners brought in to deal with specialist areas;
- coordinate together with RoodMicrotec's specialist departments, the selection of suitable subcontractors for the manufacturing of wafers, assemblies (enclosures) and component testing;
- assume responsibility for supplier management and in this role also perform on-site process audits;
- provide consultancy services to automotive customers and give training courses and workshops.

Our efforts resulted in acceptance and recommendation from the automotive sector and as a result we succeeded in concluding two large contracts with well-known companies in the automotive sector:

- A contract representing approx. EUR 25 million over a period of 10 years. After the engineering phase, production is expected to start in the second quarter of 2017. From then on the expected sales will be between EUR 2.5 and 3 million per year.
- A contract representing approx. EUR 20 million over a period of 10 years. Sales will reach EUR 150,000 in the engineering (pre-production) phase. Volume production is expected to kick off in the fourth quarter of 2017. Sales will vary during this phase and are expected to increase from approx. EUR 1 million per year to at least EUR 3 million per year.

### Industrial

- A 10-year contract with a sales volume over this life cycle of approx. EUR 9 million. The contract was signed with an OEM (Original Equipment Manufacturer) to engineer a new product (chip), for which we will subsequently perform volume production throughout the life cycle of the product. The subsequent volume production, mainly testing, will start in the middle of 2016 and will increase over a number of years to approx. EUR 1.2 million a year.

This customer, a new addition to our customer base, is a medium-sized fast growing stock exchange listed OEM. The internationally operating company very successfully markets new industrial and consumer products, and is realising 15% to 20% sales growth per year.

Of the approx. EUR 9 million value of this order, approx. 90% of the work will be done in-house by us.

- Several SCM projects for new and existing customers.

## Healthcare

In this sector we received an order for test development for a first chip in a series of new products.

## Publicly funded projects

We joined a partnership in two publicly funded projects. Being a partner in a consortium with leading companies enhances our visibility in the market and so strengthens our reputation, but will also help us to gain further expertise. Both projects are in the field of Industry 4.0/IoT (Internet of Things), which is one of our focus areas for 2016 and beyond. Industry 4.0/IoT means extensive networking, using innovative IT systems that enable entirely new production methods.

- The ParsiFAL 4.0 project started on 1 November 2015. The aim is to realise a thin flex foil with integrated electronic chips for sensors, microcontrollers, wireless interfaces and energy harvesting components for Industry 4.0. It is an important step forward that will have applications in many different markets.

The first application will be for Festo AG & Co.KG, a leading global industrial control and automation company. It will be used as a flexible control unit for independent automation equipment (smart sensor system). The second application for Bosch will be flexible foil used as an information label on shipments, especially in the food and pharmaceutical industries, whose products are very sensitive to high temperatures and vibration. With several sensors the conditions during transit can be recorded. This will be a major step forward in securing safe transport.

The other partners are Festo AG & Co.KG, Bosch GmbH, Hahn-Schickard Gesellschaft für angewandte Forschung e.V., Institut für Mikroelektronik Stuttgart, Infineon Technologie AG, Micronas GmbH, Stackforce GmbH, Würth Elektronik GmbH Co & Co.KG. The project is approx. 50% publicly funded by BMBF (Bundesministerium für Bildung und Forschung/ Federal Ministry of Education and Research).

- The negotiations for the ScaleIT@Shopfloor project were finalised in December 2015; the project started on 1 January 2016 and will run for 3 years.

The project should prepare high-tech companies for the start of Industry 4.0. Currently there are still many manual processes in high-tech companies' production lines. In Industry 4.0, production should have a high degree of automation and intelligent networking in the company. That is why with our partners in the project ScaleIT@Shopfloor we want to achieve solutions in the area of intelligent test devices and also process concepts which can be introduced into production.

The biggest hurdle in Industry 4.0 is the complex network of different areas, for example how to connect the hardware to the software and so on. For this we are in a good position in this project, as the partners are all key players in their field, so we can gain the best synergy.

In the first step our partner 'Feinmetall' will produce an intelligent test card, which we will implement at an intelligent electronic test system workstation that we will build.

That intelligent workstation should interact with the intelligent test card from Feinmetall and also with all our IT systems which are necessary for an electric test. The benefits we expect to gain from this system are ad hoc data, e.g. necessary information for the operator, status for the ERP system, and data for the quality system or staff. Another important point that we want to achieve is that we automatically get the conditions during operation, like hit-downs, contacts, operational temperature and also decisions about calibration or maintenance.

With our partners we will also develop Industry 4.0 processes which will be tested and refined during the project.

For RoodMicrotec the funded ScaleIT@Shopfloor project is a great opportunity to be one of the leading companies in our sector in Industry 4.0. Through the coalition of companies in the project, we see the project as being very well matched to our goal.

The partners are:

Bull GmbH, Carl Zeiss 3D Automation GmbH, digiraster GmbH, Feinmetall GmbH, Karlsruhe Institute of Technology (Pervasive Computing Systems / TECO), microTEC Südwest e.V., Ondics GmbH, Sick AG, Smart HMI GmbH, Universität Stuttgart, Institut für Arbeitswissenschaften und Technologiemanagement IAT, Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e. V., Fraunhofer Institute für Arbeitswirtschaft und Organisation IAO.

## Collaboration/partnerships

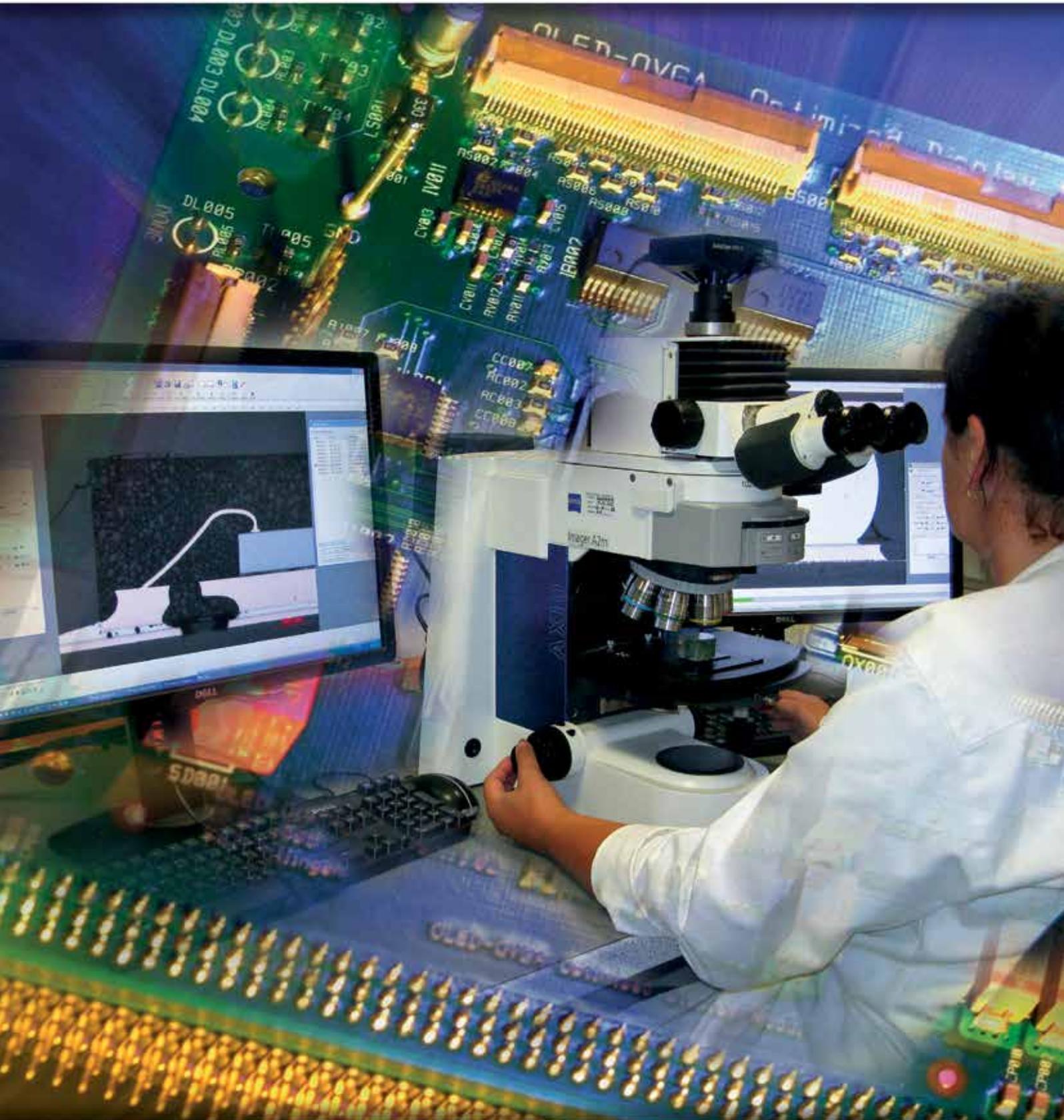
We have concluded major collaborations agreement with several European leading and most successful Fabless Companies (design houses).

These design houses develop many high-grade microchips every year. Due to their growth, the design houses felt a need to select a specialist supplier who could support it in manufacturing high-grade microchips (high-reliability chips) and in their growth process. Our experience, knowledge and infrastructure, including our equipment, proved to be a perfect match to the design house's needs.

Depending on the product (the chip), we will provide both individual services and backend manufacturing services.

In 2014 we announced our partnership with the Fraunhofer Institute for Integrated Circuits IIS. In 2015, other well-known companies and institutes showed interest in forming a partnership with us.

These developments and also the fact that we are accepted by a number of big players in the market (assembly houses, wafer fabs and Electronic Manufacturing Services Companies) proves that we are recognised 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.



### Partnership - Fraunhofer Institute for Integrated Circuits IIS and RoodMicrotec

'The Fraunhofer Institute for Integrated Circuits IIS in Erlangen and RoodMicrotec have a well-established partnership going back over 10 years. RoodMicrotec provides qualification, testing and backend capabilities for a number of ASIC projects, which were all designed at Fraunhofer IIS.

As a research institute we appreciate the supply chain management services provided by RoodMicrotec, which complement our ASIC development expertise.

Together we can provide the complete process from specification to volume delivery to our industrial and automotive customers.

We are very satisfied with the deep experience and knowledge of RoodMicrotec in the field of industrialisation of complex ASICs. Based on this positive experience we are looking forward to a growing business in the coming years', said Josef Sauerer, Head of Department Integrated Circuits and Systems.



### About Fraunhofer Institute for Integrated Circuits IIS

With more than 30 years' experience, Fraunhofer IIS is one of Europe's leading technology and foundry independent institutes for ASIC and IP development for the industrial, automotive, medical and communication markets. Next to mixed-signal, RF and digital design we have a special focus on integrated sensor systems on CMOS technologies, mainly optical and magnetic sensor systems. Our 3D Hall sensor technology known as HallinOne is licensed to several suppliers of Hall sensor products. As EuroPractice MPW-Center we provide access to prototype and small volume manufacturing with ams, Globalfoundries and IHP.

Copyright for the picture of Mr. Sauerer, Fraunhofer IIS  
"Fraunhofer IIS/Karoline Glasow"

## Other developments

We strengthened our know-how in different areas such as project management, design and management and the Automotive Competence Centre.

We also have some new highly experienced and talented people on board. All in all we have a strong, dedicated and ambitious team.

In order to become a well recognised player it is necessary to increase our brand awareness. As the Dutch proverb *onbekend maakt onbemind* (unknown, unloved) illustrates. Last year we worked hard on increasing our visibility by publishing several technical articles, by giving presentations around Europe, by publishing newsletters and by organising our annual seminar. Our seminar is a growing event: last year we had over 80 attendees, who gave us positive feedback. We are also an active member in several industry groups like SiPAT, MST, IMS, NMI, Silicon Saxony working groups IC Design / Test Integrated Systems.

## TRENDS, MARKET DEVELOPMENTS AND MARKET POSITION

### Trends

### Outsourcing

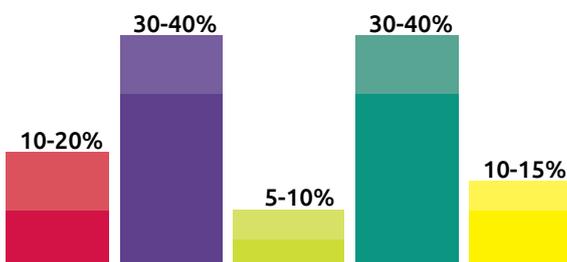
Medium-sized companies are increasingly working together in order to raise their joint services to a higher level so as to best combat competition from Asian countries.

OEMs who still develop ASICs or other chips in-house will increasingly outsource this work to independent service providers like RoodMicrotec. This outsourcing trend is expected to continue. Partly due to our infrastructure, we are in an excellent position to profit from this optimally.

We are highly experienced in a wide range of services, such as test engineering, failure & technology analysis and qualification & reliability.

### Outsourcing reasons for our customer

Time to market	10-20%
Cost price reduction	30-40%
Stimulation of innovation	5-10%
Focus on core business	30-40%
Quality Improvement	10-15%



With shock proofing, thermal load and electrostatic discharge tests, we are uniquely able to investigate whether products will function under all conditions and predict their expected life.

Another benefit is that as an independent service provider we are never in competition with the Intellectual Property (IP) of other companies; in fact we can protect our customers' IP.

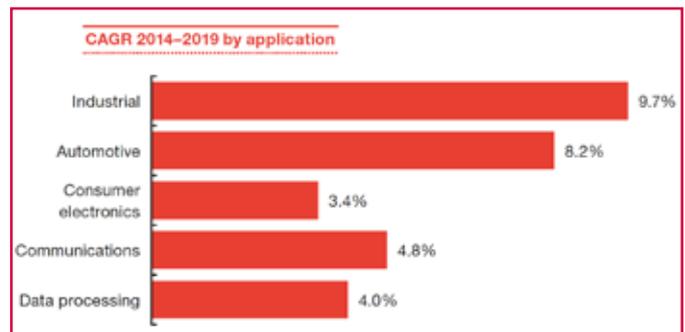
Outsourcing of activities by OEMs creates a win-win situation for both parties. By transferring ASIC development and production to us, OEMs can focus on their core activities: application and sales of mechanical and electro-technical products.

For OEMs, outsourcing also means considerable cost savings, quality improvements and shorter time-to-market. The projects outsourced to us will run several years, providing us with a solid base and predictable sales.

## Automotive

For a number of reasons, the automotive sector promises to be a particularly dynamic growth driver for the semiconductor industry. Although conventional cars are still selling well, electric cars and hybrids are rapidly gaining ground.

Furthermore, the semiconductor content of cars is not only growing quickly, as they rely on greater intelligence, connectivity and sophisticated electronics (autonomous drive, car-to-car communication), but the nature of the automotive industry model is also shifting in new directions. Conventional cars will eventually disappear. Concepts of product ownership will give way to service propositions to deliver mobility to consumers who will pay only for what they use. Creating and managing the systems to deliver that mobility will depend heavily on complex electronics.



Source: Gartner, PwC analysis.

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).

Within our Automotive Competence Centre we have established our own competencies in the automotive field. This initiative is bearing fruit and last year resulted in two big automotive contracts.

## Industrial (Industry 4.0/IoT)

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.

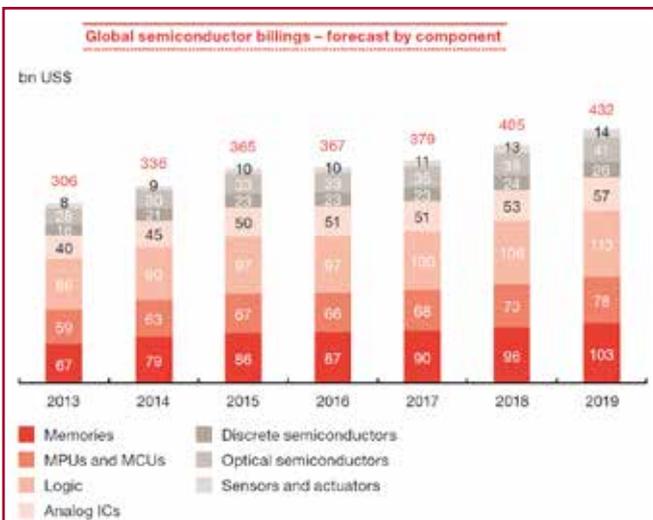
Characteristic for industrial production in an Industry 4.0 environment are strong customisation of products under the conditions of high flexibilised (mass) production. The required automation technology is improved by the introduction of methods of self-optimisation, self-configuration, self-diagnosis, 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-organising logistics that react to unexpected changes in production.

We are a partner in two consortiums that are developing applications for Industry 4.0, from which we will gain a great deal of experience, knowledge and brand awareness

In addition to Industry 4.0, IoT describes the complete world of different sensors with 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, etc.), in cars (car-to-car communication, internal car communication), in agriculture and elsewhere.

In each case, 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 Internet of Things products and applications will play an important role in the development of the market. That market, in turn, may represent a significant growth opportunity for semiconductor players.

Analysts have predicted that the installed base for Internet of Things devices will grow from around 10 billion connected devices today to as many as 30 billion devices by 2020.



Source: Gartner, PwC analysis.

Each of these devices will require, at a minimum, a microcontroller to add intelligence to the device, one or more sensors to allow for data collection, one or more chips to allow for connectivity and data transmission, and a memory component.

For semiconductor players, this represents a direct growth opportunity (source: McKinsey report December 2014).

We are active in the field of smart metering/smart grid through one of our main customers.

This is also for us a strong expanding market

## High customer expectations

In the semiconductor industry, and especially the sectors we focus on, customers have high expectations not only for reliability and quality.

They also expect excellent service, on-time delivery, know-how and support. And in addition to our strategy in which we contribute more actively to new product development (co-creating and co-operation) and in which we are responsible for the supply chain management, they also expect us to come up with solutions during the whole process.

These customers see us as the expert. As a consequence we are responsible for each step in the process.

We are fully aware of this and are acting accordingly.

The way we have set up the procedures in our Automotive Competence Centre is completely in line with this urge for responsibility.

## Networking

Being part of a network is essential in our industry.

We do not need to be very big, we need to have strong partners. For that reason we have partnerships or work very closely with inter alia institutes, like the Fraunhofer IIS, wafer fabs, assembly houses, design houses and universities (Ulm, Stuttgart, Karlsruhe, Regensburg).

The publicly funded projects mentioned earlier are a good example of a consortium of partners.

We each have a great deal of experience and knowledge and by sharing this it makes everyone stronger and this may lead to more innovations.

One plus one equals more than two.

## Market developments

Rapid technological innovation is driving growth in the semiconductor industry. As more and more cutting-edge devices emerge, such as electric cars and hybrids, medical applications, smart phones and wearable devices, the number of semiconductor components in daily use is ever expanding.

The advance of digitisation and the IoT will further increase demand for semiconductor products. Taken together, these factors will drive solid growth for the global semiconductor market over the next five years.

PwC's analysis of the global semiconductor market of May 2015 suggests that between 2014 and 2019 billings will increase by US\$ 96 billion to US\$ 432 billion, corresponding to a compound annual growth rate (CAGR) of 5.2%.

This analysis assumes that there won't be an economic downturn in the period to 2019 and that the technological progress will maintain its high pace and that the scaling down of semiconductor feature sizes will continue.

In Asia, China will continue to expand its semiconductor market leadership and increase its market share. In contrast, Japan will grow only by an annual rate of 1.5% in the projected period. Europe and the Americas will see moderate annual growth rates to 2019 of 3.9% and 4.5% respectively. For the rest of the world, growth will be concentrated in Taiwan, South Korea and Singapore.

The following key findings in the PwC report support our strategic choice for our focus markets:

1. The automotive and industrial markets will both drive significant growth in demand for semiconductors.
2. The IoT is the next growth engine for the semiconductor industry, particularly for the sensor, communication and industrial segments.

## Automotive

Although conventional cars are still the most important driver for the semiconductor industry, the worldwide market for electric cars and hybrids is growing fast. The growth of this market will lead to additional demands on electronic equipment and create a positive impact on the semiconductor industry.

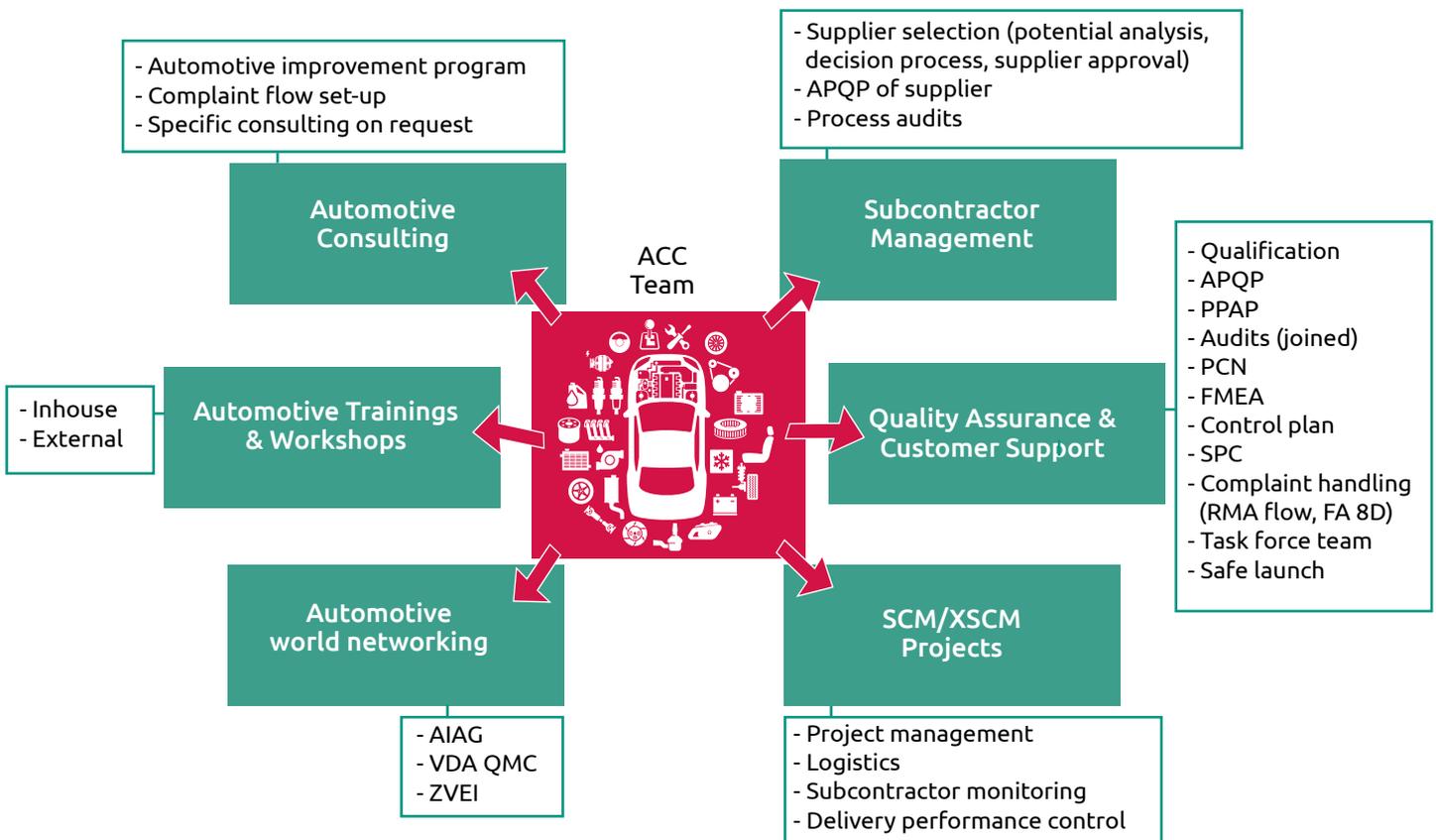
PwC expects that the CAGR of semiconductor content sales market will reach 20.5% for electric cars and hybrids in the period to 2019.

## Industrial

The growth of industrial semiconductor sales is generally accepted to show a high degree of correlation to GDP growth. As the economic recovery progresses in the period to 2019, it is therefore likely to see high growth in the industrial segment. The expected growth rate will be 9.7% CAGR in 2014-2019.

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

### Automotive Competence Centre (ACC) Portfolio:



### INOVA Semiconductors in close cooperation with RoodMicrotec for the third generation APIX

Inova Semiconductors is a fabless semiconductor company which has developed the APIX technology, a serial high speed Gbps link to connect displays, cameras and control units in cars. Since introducing this technology in 2006, Inova has a close cooperation with Microtec - later RoodMicrotec - in the field of volume production test, actually several million units per year - AEC-Q100 qualification, failure analysis and test engineering. During this time RoodMicrotec was audited by several major Tier 1s in the automotive market strengthening Inova's confidence in RoodMicrotec as partner.



Starting with BMW in 2008, Inova's APIX technology now is used by a series of premium car manufacturers such as Jaguar, Land Rover, Volvo, Bentley, Rolls Royce and Alfa Romeo, with further OEMs to follow soon.

To date there are more than 40 million APIX nodes in the market, from Inova itself and its licensees Socionext, Toshiba, Analog Devices and Cypress. The 3rd generation - APIX3 - with 12 Gbps is launched with first samples already at Alpha customers.

'We are glad to announce that after APIX and APIX2 we plan to extend the cooperation with RoodMicrotec also for our upcoming APIX3 products,' said Managing Director Robert Kraus of Inova Semiconductors.

### About INOVA Semiconductors

Inova Semiconductors is a fabless semiconductor manufacturer and developer of the APIX technology, headquartered in Munich, Germany.

The company was founded in 1999 and specialises in the development of state-of-the-art products for Gbps serial data communication. The products are manufactured at leading factories in Asia and Europe and sold through a world-wide distribution network.



# QUALITY MANAGEMENT

## Internet of Things (IoT)

From a futuristic concept just a few years ago, real products, services and applications have materialised. New applications are being announced every day. The IoT is manifesting itself in technologies beyond consumer electronics in other markets and applications to.

The rapid advances being demonstrated through self-driving cars and drones are just the beginning of the endless possibilities that a network of smart connected devices can bring. While there varying estimates and forecasts for the number of smart connected devices, the PwC study expects there to be between 30 to 50 billion connected devices by 2020.

These connected devices, according to industry analysts at IDC, will drive the total IoT market to US\$ 8.9 trillion by 2020, with three segments:

- consumer electronics (US\$ 2.2 trillion)
- automotive (US\$ 1.8 trillion)
- medical (healthcare) (US\$ 1.3 trillion)

PwC expects that the opportunity for semiconductor devices from 'IoT related opportunities' will reach some US\$ 33 billion by 2019.

## Market position

In the field of supply chain management we have four competitors in Europe, each with different strengths and focus on specific market segments. As to our supply chain management services we are clearly the strongest in the automotive sector, while we also have a leading position in the industrial sector.

Our company's success is the success of our customers, employees and investors. This is the main guiding principle of our quality management system.

This requires continuous improvement of quality management and its processes and procedures and demands a high level of dedication and commitment from our employees. Management determines the quantifiable quality objectives for the company with clear and objective evaluation and target cascading for the business units. Following this, it defines targets for the business units and business unit managers.

Through the implementation of an Automotive Competence Centre, it is very important to focus more on the quality management system to the quality relevant automotive tools such as APQP, PPAP and RMA. Process instruction and introduction within RoodMicrotec is an intensive process, and training is needed to implement the processes effectively and successfully. The devotion to the automotive tools is key for SCM projects in the automotive industry.

Our integrated quality management system is based on international DIN EN ISO 9001 standards. In addition, the quality management is broadly consistent with Automotive Specification ISO/TS 16949.

RoodMicrotec's laboratories for qualification & reliability (electronic, mechanical and optical qualifications) and failure & technology analysis in Nördlingen and Stuttgart are accredited by DAkkS, the German accreditation body, as compliant with ISO/IEC 17025, 'General requirements for the competence of testing and calibration laboratories'.

With our products and services, we aim to exceed customer expectations in terms of quality and price.

Our ISO 9001 certification will be renewed in 2016 and adjusted to the new 2015 version. The most important advances of the new ISO management systems are:

- integration of other management systems will be less complicated. They will all have the same structure.
- certification becomes more efficient and effective.
- the new standards fit in better with strategy and governance of organisations.
- risk management, compliance management and process management are anchored in the new ISO standards.

We will renew the accreditation of ISO/IEC 17025 and work on getting the EMAS validation.

We will also start preparation for an AEO (Authorised Economic Operator) declaration.

We will also set up a training program for promotion of zero defects philosophy.



## Cornelia Gehweiler

'In the second half of last year I joined the Supply Chain Management team as automotive and avionics experienced project manager. They were exciting months in which our Automotive Competence Centre realised major steps by concluding two contracts in the automotive sector and also by establishing new supplier relations. The great challenge for me is to further develop project management and to coordinate the existing projects. I feel I have a lot of responsibility, because the quality standards are high in this industry and new standards are even more stringent. To be part of this dynamic environment gives me a lot of satisfaction.'

## Christin Gädtke

'Last year, we booked several major projects which will all run for 10 years. Our challenge for the next few years is to add new long-term projects to the pipeline, in Germany and other European countries. The main focus will be on SCM projects in the automotive and industry sector, both Fabless companies and (Tier 1) OEMs. When we are talking about long-term projects we have to be considered as a stable partner during all these years. Therefore, it is very important to build up and maintain good relationships with our customers. That means a lot of visits to our customers as well as listening and understanding their problems, always being available and providing solutions where needed. Our Sales & Marketing team is strongly committed to doing so. I am proud to bring in my experience and know-how and be a member of this team. My focus area will be on Austria as well as on other countries.'



## Michael Dommel

'My knowledge of HW (hardware) development and test is very useful in my new position as an engineer in the Business Unit Qualification & Reliability. I like the direct contact I have with the customers and also the fact that they count on me to provide them with cutting-edge solutions. We received new orders for full AEC-Q100 qualification, which is right up my street. I also participate in different working groups of RoodMicrotec, which makes my job very varied. Although we have separate business units, we all work together on the various projects and that makes a team strong.'

# HUMAN RESOURCES AND SUSTAINABILITY

Changes, such as poverty in developing countries, demographic changes, globalisation, youth unemployment, climate change and natural resource utilisation issues, are affecting our environment and the people living in it. These forces are shaping our business by creating new markets and opening up new opportunities. They also cause significant risks that need careful management.

Values and sustainability can minimise these risks and master these challenges to optimally leverage emerging opportunities for our stakeholders.

We attach a great importance to good relationships with the group's customers, employees, suppliers, other business partners and the communities in which we are active.

Corporate Social Responsibility and sustainability are therefore intrinsic, integral elements in our local operations. For RoodMicrotec, Corporate Social Responsibility means conducting business with due consideration for climate effects and energy sources, for people and the environment, taking responsibility for the chain in which the company operates.

That is why our strategy already includes 'people, planet and profit':

Long-term economic, environmental and social aspects are integrated into our business strategies, while maintaining global competitiveness and brand reputation.

We manage our human resources so as to maintain workforce capabilities and employee satisfaction. We strive to give our employees best-in-class organisational learning and knowledge management practices. In order to create a performance-oriented environment for our employees we offer remuneration and benefit schemes depending on company's objectives and individual objectives.

The aim of our environmental policy is to safeguard the environment and human health. The practical aims are to monitor and prevent environmental risks so as to avoid compromising environmental conditions for future generations.

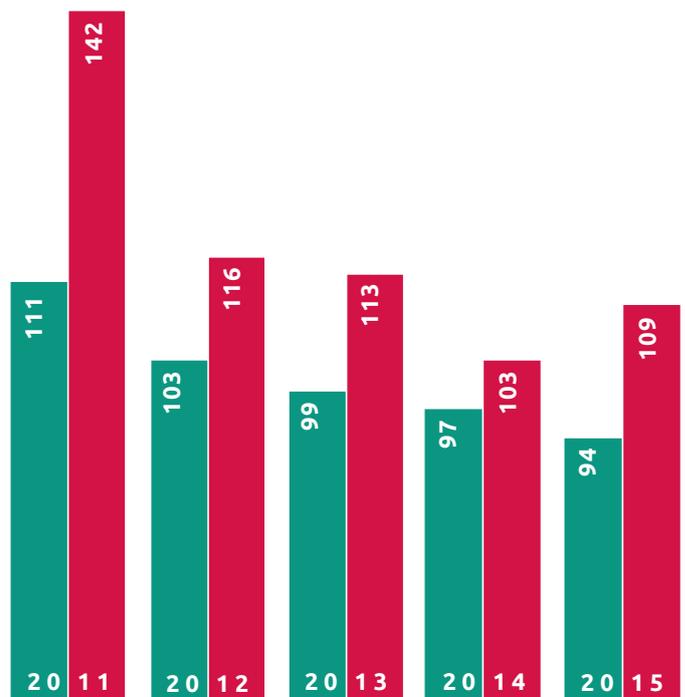
As a company we bear a social responsibility that necessitates consideration of environmental issues when assessing processes.

## Employees, sales by employee and head count

During 2015 RoodMicrotec continued the consolidation process in personnel and organisation. In that period 12 employees from different departments left RoodMicrotec. In key positions RoodMicrotec hired experienced people to strengthen the position of RoodMicrotec in the market, such as CTO Martin Sallenhag, CFO Erwin Vrielink, Dr. Christin Gädtke in Sales & Marketing, Cornelia Gehweiler in SCM and Michael Dommel in Qualification & Reliability.

The average number of full-time employees (FTE) decreased by approx. 3% from 97 FTEs in 2014 to 94 FTEs in 2015.

Sales per full-time employee increased by approx. 6% from EUR 103,000 in 2014 to EUR 109,000 in 2015. Our policy is to continue to strive for growth of sales per FTE.



Av. head count FTE (fix)  
Sales per FTE (fix) in EUR x 1,000

We performed an evaluation of employee satisfaction asking about working conditions, job/task description, line managers, colleagues and management. We are taking up all input and will try to initiate some necessary changes. The next evaluation is planned for the second half of 2016.



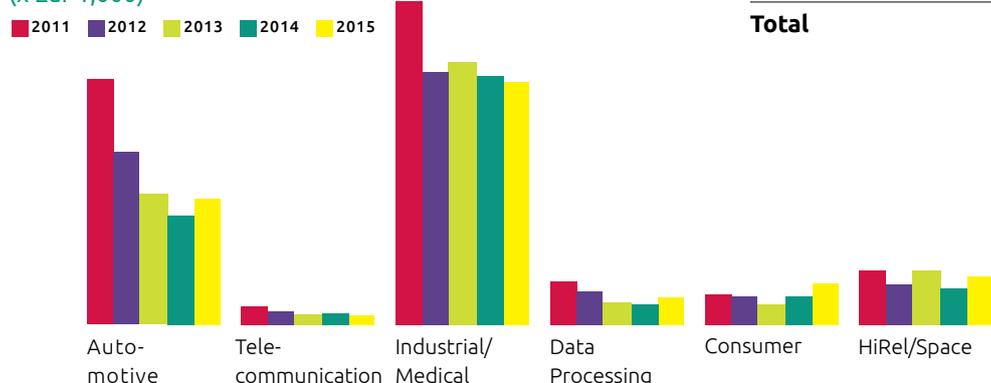
# FINANCIAL DEVELOPMENT

## Sales and result

Sales saw a limited increase to EUR 10.3 million. The cost of sales was in line with last year, i.e. EUR 1.9 million. This is equal to a gross margin of EUR 8.4 million, or approx. EUR 200,000 more than last year. Total operating expenses were EUR 8.8 million, against EUR 8.9 million in 2014, which was due to a lowering of personnel costs and due to the fact that the other operating expenses slightly increased. This latter was mainly caused by the additional audit-related and legal assistance costs of approx. EUR 200,000 in order to finalise the annual report 2014 with the previous auditor.

## Revenue by Customer Segment

(x Eur 1,000)



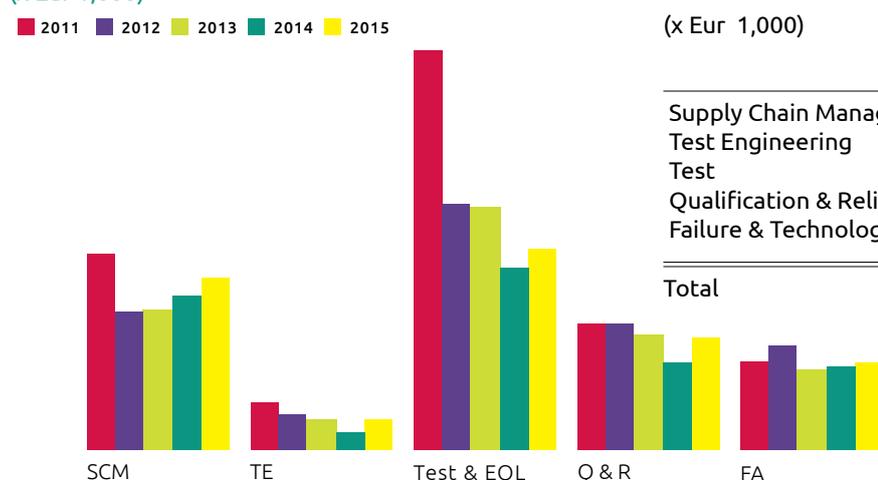
Net sales are presented below, broken down by customer segment.

(x Eur 1,000)	2015	2014	Approx. change
Automotive	3,021	2,671	+13%
Telecommunication	211	239	-12%
Industrial/Medical	5,201	5,545	-6%
Data Processing	551	527	+5%
Consumer	598	478	+25%
Hi-rel/Space	668	511	+31%
<b>Total</b>	<b>10,250</b>	<b>9,971</b>	<b>+3%</b>

The increase in the automotive market was mainly due to the announced new orders and growth of recurring business of running projects. The industrial market showed a slight decrease from 2014 to 2015 but stable growth over the year. In this segment we started several projects which will create growing and recurring revenue for the coming years. The HiRel/Space market increased significantly due to several new and some running projects. This growth will continue into next years.

## Revenue by Business Units

(x Eur 1,000)



The sales results of the business units were as follows:

(x Eur 1,000)	2015	2014	approx. change
Supply Chain Management	2,348	2,850	-18%
Test Engineering	437	516	-15%
Test	3,676	3,503	+5%
Qualification & Reliability	2,134	1,585	+35%
Failure & Technology Analysis	1,655	1,517	+9%
<b>Total</b>	<b>10,250</b>	<b>9,971</b>	<b>+3%</b>

The growth in the BU Qualification & Reliability was the result of an increase of qualification orders from automotive, industrial and space customers. The increase in the BU Failure & Technology Analysis was due to the fact that the company has strengthened its reputation in the market and also offers new services. Sales in the BU Test increased as a result of a growing market in existing products. Decrease in sales of the BU Supply Chain Management was related to a temporary market driven slowdown of our main customer. This is expected to recover in 2016. The BU Test Engineering invested effort in the internal development of tools and procedures to prepare the BU Test for the increasing demand in the future. Net result showed a loss of EUR 1.5 million (2014: EUR 1.7 million loss).



MIXED-SIGNAL FOUNDRY EXPERTS

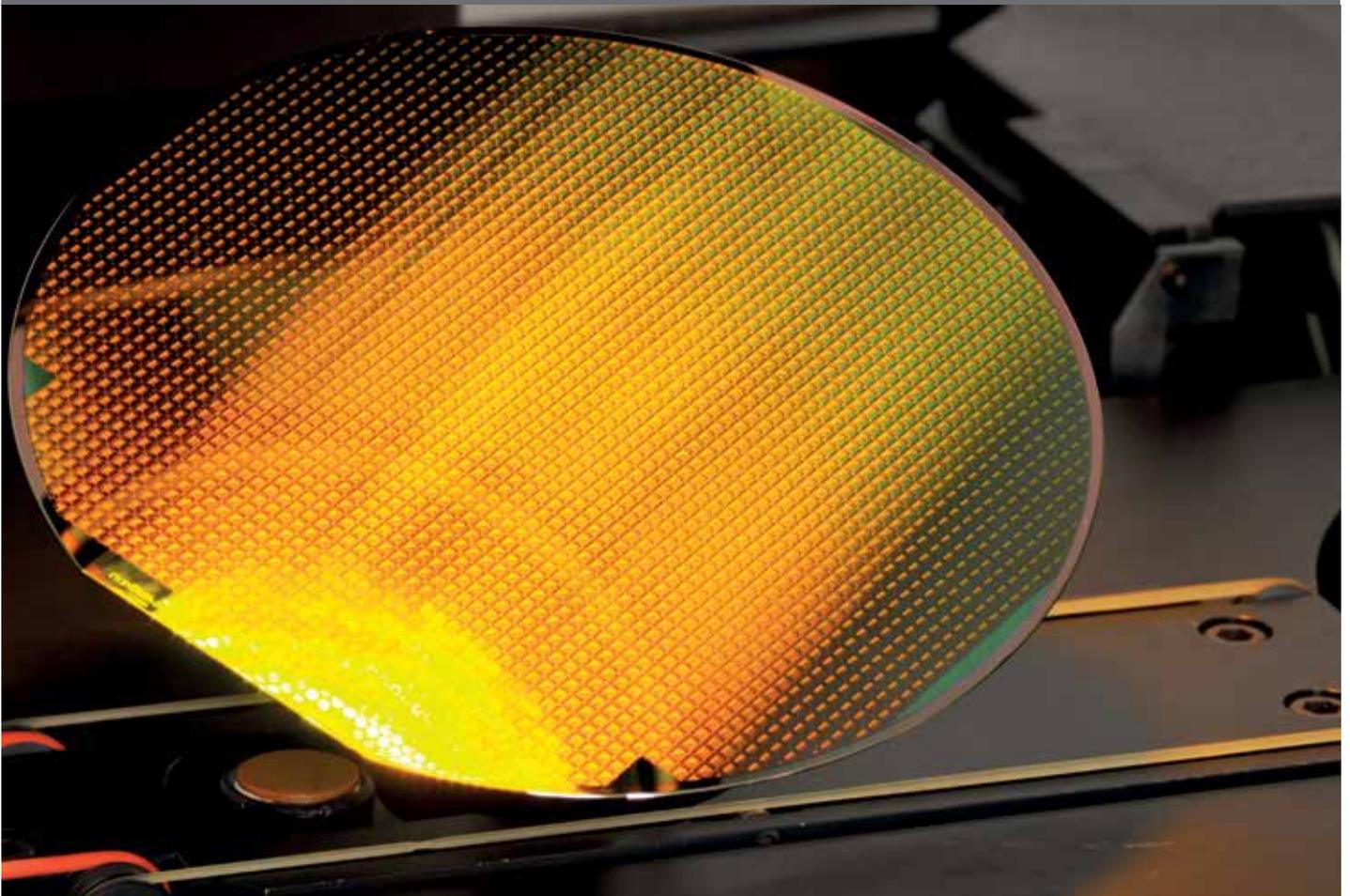
## X-FAB – View on its partnership with RoodMicrotec

'As a pure-play foundry supplier with a strong focus on serving the industrial, automotive and medical market, it is important for us to have the right partners in the supply chain. More specifically, we need a company that is able to perform the whole supply chain management and knows the requirements that industrial applications have to conform to. Apart from having to last for many years, there are very stringent requirements with respect to reliability and quality, also in harsh environments, such as severe temperature fluctuations, electromagnetic discharge and shocks.

RoodMicrotec is the right partner for us due to its focus on and expertise in the industrial market who fully understand the scope of requirements which customers designing ICs for industrial applications have. Together, we can proudly look back on more than 15 years of collaboration. In some cases we serve the same customers: we as a foundry, and RoodMicrotec as their SCM and test partner', said Dr. Ulrich Bretthauer, Business Line Manager Industrial & Medical at X-FAB.

## About X-FAB

X-FAB creates a clear alternative to typical foundry services by combining solid, specialised expertise in advanced analogue and mixed-signal process technologies with excellent service, a high level of responsiveness and first-class technical support. X-FAB manufactures wafers for automotive, industrial, consumer, medical, and other applications. Its marketing network and client base span the Americas, Europe and Asia. With its five manufacturing sites in Germany, Malaysia and the USA, X-FAB has a combined capacity of ~72,000 eight inch equivalent wafer starts per month and employs 2,500 employees worldwide.



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## Financial position

The balance sheet total remained stable at EUR 13.5 million in 2015 (2014: EUR 13.5 million).

Equity increased by EUR 0.7 million, from EUR 3.6 million to EUR 4.3 million, which was due to the receipts from the equity line and warrant plans and reduced due to the net loss in 2015. Solvency improved, from 26% to 32%. The net debt position improved to a level of EUR 1.6 million. Working capital increased to EUR 523,000 which is mainly due to higher cash and cash equivalents and lower trade and other payables.

Property, plant and equipment decreased by EUR 600,000, as the depreciation was higher than the investments. The intangible assets increased by EUR 500,000 as a result of capitalisation of development expenditure for the Automotive Competence Centre.

Cash and cash equivalents increased from EUR 200,000 to EUR 700,000, in particular due to the equity line financing that we had in 2015.

## RESEARCH AND DEVELOPMENT

In order to be competitive in our business, RoodMicrotec invests relatively large amounts in (technical) innovations. In 2015, RoodMicrotec invested in internally generated assets in the Automotive Competence Centre (ACC). The ACC has been set up by the company in 2014 in order to be able to offer new services that are required and expected for automotive projects. In 2015, total investments in capitalised development expenditure amounts to EUR 435,000.

Besides the company invested in innovations by means of partnerships in publicly funded projects. In 2015, two projects were started, which are both in the field of Industry 4.0/IoT.

## FOCUS AND ACTIONS 2016

Whereas last year our main focus was on the automotive sector, which resulted in some major contracts, this year we will still focus on the automotive sector, but the emphasis will be on the industrial sector.

### Focus

#### Industrial

In the industrial sector all attention is on the 'fourth revolution': Industry 4.0. Based on our knowledge and experience we are well positioned to play a role in these developments. As a partner in two publicly funded Industry 4.0 projects we have good access to all parties involved. This is good for our reputation and brand awareness and gives us a starting point to roll out our services.

## Automotive

We are a recognised player in the automotive sector, which is a fast growing market that offers us a lot of opportunities.

The growth of this market will lead to additional demands on electronic equipment and create a positive impact on the semiconductor industry. For example, semiconductor content per vehicle is 1.5 to 3 times higher in electric cars and hybrids compared to conventional cars.

### Actions

- Investment in a new 12" wafer prober. With this investment, we will establish a unique position in our segment as a service provider to Fabless Companies (design houses) and OEMs.
- Investment in an additional Advantest 93000 (V93K) test system for complex high performance devices. This will enable us to win new business from existing and new customers
- To strengthen our customer base by focusing on existing customers with high potential and by approaching new strategic customers with high potential.
- We will focus on Tier 1 as well as Tier 2 customers in the automotive sector. Our other focus of interest will be the industrial sector.
- To improve brand awareness of RoodMicrotec through:
  - Professional and accessible website
  - Professional valuable articles for customers and other stakeholders
  - Presentations on seminars and a few trade fairs
  - Presence on well selected and dedicated fairs
- To (continuously) make the difference by:
  - Showing high technical and personal competence
  - Showing responsibility and entrepreneurship
  - Providing solutions and thus having added value.

## OUTLOOK 2016

As a result of new arrangements announced in early 2016 and the contracts announced in 2015, RoodMicrotec expects that turnover will increase substantially in the coming years. We expect that in 2020 our turnover will approximately be 75% higher compared to the total turnover of over EUR 10 million in 2015.

Given the increased order value and other positive signals for 2016, we raise our expectation for turnover in 2016 to the upper end of the marked growth range (7% to 12%), which outperforms the worldwide forecast for the semiconductor industry.

Beyond 2015, the Semiconductor Industry Association (SIA) expects the global semiconductor market to grow at a modest pace. 0.3 percent global growth is forecast for 2016 (US\$ 341.0 billion in total sales) and 3.1 percent growth for 2017 (US\$ 351.6 billion).

# REPORT PER BUSINESS UNIT

## Supply Chain Management

### Profile



In the business unit - Supply Chain Management (SCM)/eXtended Supply Chain Management (XSCM) - RoodMicrotec supports customers who wish to launch high-quality semiconductors, in particular ASICs and ASSPs, on the worldwide market. RoodMicrotec provides comprehensive services, from the beginning of the development process (together with design partners) all the way up to delivery to its customers, including engineering support, test engineering, wafer test, assembly (through partners), final test, qualification and reliability, failure and technology analysis 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. Our customers are Fabless Design houses and OEM companies.

RoodMicrotec handles the complete (turnkey) industrialisation of ASICs from GDSII data up to the final product including all automotive-specific Quality Assurance activities. RoodMicrotec is capable of managing 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 a partner).

### Key developments in 2015

Our Automotive Competence Centre is well recognised in the market and thanks to this we were able to conclude two major contracts in the automotive sector.

Cornelia Gehweiler has joined the team as an automotive and avionics experienced project manager. She will further develop the project management in accordance with the existing and new standards in the industry. In addition she coordinates project details, time schedules and monitors the progress on automotive projects, including the automotive-specific quality gates.

New supplier relations have been established for the automotive and industrial market segments:

- 4 wafer foundries worldwide through direct or channel partner access
- 'MoU' for cooperation is signed with several major European design partners
- Significant increase in our position as leading partner for assembly houses
- 3 automotive qualified partners in Far East
- 2 industrial qualified partners in Far East
- 4 partners in Europe for highly sophisticated packaging

### Actions 2016

In 2016 RoodMicrotec will focus on Tier 1 + Tier 2 customers in the automotive and industrial markets. We will offer ASIC turnkey services in conjunction with several Fabless Design houses to win new projects for industrialisation and recurring business. We will strengthen the SCM team to cover new and increasing demand from the market. Project management will be adapted to the new requirement of the ISO 9001 version of 2015, including risk management.

## Test Engineering

### Profile



RoodMicrotec's Test Engineering business unit provides complete test solutions for a wide range of devices like mixed-signal, digital, analogue or RF ICs. Customers include OEMs, IDMs and Fabless Companies working worldwide in automotive and industrial, healthcare, HiRel and aerospace, and consumer sectors.

Our team of highly skilled engineers develops test programs, probecards and loadboards for characterisation, 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.

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

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

## Test Engineering strategy

One of the building blocks to achieve a reliable end product is a fundamentally sound test plan.

The international Software Testing Qualification Board describes very clearly the scope and activities of software development. Our understanding of their guidelines is that for the implementation of the objectives of the Software Testing Qualification Board a sound test engineering strategy (including test software design) is indispensable.

This is why any project starts with the test engineering strategy, in which the quality objectives of the projects are translated into the tasks that the test software should perform. We then discuss these quality objectives in detail with the customer, and we explain how they are built into the test software. We also provide feedback on the measured values in terms of the agreed quality objectives.

Major projects can be particularly complicated because they require a great deal of liaising with all the channel partners, partly due to the large number of complex technical issues.

Writing test software without a test engineering strategy is like building a house without an architect or a car without a designer. The main risk is that without such a strategy (architecture/design) you cannot meet and measure the objectives of the interested party or client, which may or may not be accurately defined.

Also, a clever and considered strategy identifies how the objective and the added value can be achieved in the simplest way possible. The entire project also becomes much clearer.

This distinguishes our test engineering projects from those of our competitors, who offer just a run-of-the-mill test project plan with delivery times.

A great deal of test software is in fact not transparent, either because of insufficient use of standard building blocks, or because the program has not been written in a transparent and modular way, including text.

Starting from a test engineering strategy as part of the total test plan forges a link between client objectives and its translation process into readable activities that the software is to perform.

Over the past year, RoodMicrotec has materially adjusted its test engineering organisation in order to be able to flesh out our customers' objectives optimally and propose and discuss a transparent account of the method we intend to use to achieve them.

For this, we have appointed several lead engineers whose primary role is to handle the test engineering strategy, including the software design. Based on this, these lead engineers discuss their strategy with our clients. (Senior engineers then write the software.

## Key developments in 2015

Revenue in the test engineering business unit increased significantly the second half of 2015 due to more customer projects generating recurring business in our SCM and Test areas.

We have also continued the implementation of the new working strategy with a lead engineer and an engineer on all our projects to increase efficiency as well as having a redundant solution in case unexpected events happen.

## Actions 2016

The key goals for 2016 are to acquire more recurring business in the area of SCM and ASICs.

Test engineering will play a major role in this by enabling these other business units to generate the long term revenues in these areas. We will also continue to invest in new tester platforms to stay competitive in the new Industry 4.0 era as well as increased support for our SCM customers in the area of production and yield analysis.

## Test & End-of-line Services



### Profile

The Test, Programming & EOL Services business unit covers the complete semiconductor segment, with focus geared towards wafers and semiconductor component tests.

The objective is to provide our customers with the best possible support by applying continuous improvement measures to our systems – and not simply offering services to customers. The customers include OEMs, Fabless Companies, distributors, IDMs and other customers in the automotive, industrial, healthcare, telecommunications and HiRel markets.

## Key developments in 2015

### Test

During 2015 RoodMicrotec made some significant changes in the test operations. We have phased out most of the old handlers and as a result of this we have moved some of the customer products to new and more efficient systems. This has brought the equipment base to a much higher and more modern standard level. We have also planned and prepared for new investments in equipment to be able to service a wider market and larger volumes. The final decision was to go for the Advantest 93k system based on customer requests as well as general market demand.

This system covers the complete range of products from simple Logic-ICs to highly integrated micro-controller and processors.

RoodMicrotec has also looked into the possibility of extending the machine park with a 12" wafer prober from Accretech, the UF3000. The market is moving in the direction of bigger wafers for the more complex products and RoodMicrotec will be able to support this with a new system. The new wafer prober will also support testing at temperatures from -55°C to +200°C which is necessary for the automotive and HiRel industries. Another benefit is that it can be used to test 8" wafers to even out the load of the existing wafer probers that we have in house.

With these new planned investments RoodMicrotec will be in an even better position to support different customer needs flexibly and efficiently.

## Programming

Complexity and miniaturisation increase every year and RoodMicrotec has taken actions to be able to support this development fully.

We have installed an additional programming system to fulfil these requirements while at the same time capacity has increased. This system can handle and program devices smaller than 2mm. One of the main enablers is the suction system that places the device very precisely in the socket.

## EOL (End-Of-Line)

The installation of a new tape & reel system was an immediate success with better throughput as well as much greater flexibility. De-taping, crack scanning and improved marking detection are some of the benefits that also help to improve efficiency.

## Actions for 2016

The new mixed-signal tester from Advantest (93k) will be installed in early 2016. This will improve our flexibility as well as give us the capability to test more advanced devices for our customers. It will of course also improve capacity as well as redundancy within test operations. The planned 12" wafer prober will also be in place in early 2016, allowing us to test bigger wafers as well as performing wafer tests at wider temperature ranges.

## Qualification & Reliability



### Profile

In our business unit Qualification & Reliability we distinguish between electrical/electronic qualification and optical and mechanical qualification.

### Electrical/electronic qualification

Here we focus on investigating electrical components like semiconductors (die level and package level), passives and PCBs.

Electrical/electronic qualification and robustness validation of customer components under extreme conditions such as climatic and temperature changes as well as vibration and mechanical shock for automotive, space, telecommunication etc. are performed to various international specifications (AEC-Q, MIL, JEDEC, ESCC, IEC, Telecommunication). Furthermore, up-screening of components (specific qualification and test flow for higher quality grade of units for military and space applications) is another main task of the business unit. Products can be tested under extreme conditions such as climatic and temperature changes as well as under vibration and mechanical shock. The investigations determine whether the components meet the required qualification standards.

Using burn-in (monitored or standard), components are stressed 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. The business unit is one of the leading independent certified test houses in Europe. Most products are tested for the aerospace, automotive and medical sectors. Our main customers are in these sectors and are Fabless Companies and OEMs. Burn-in board loading for the monitoring system can be done manually or on request by means of an automated board loader/unloader.

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

Standardised stress environments performed within RoodMicrotec:

- High/Low Temperature Operating Life Test (HTOL/LTOL)
- Low/High Temperature Storage Life Test (LTSL/HTSL)
- High Accelerated Stress Test (HAST/UHAST, Unbiased)
- Autoclave (AC)
- Temperature Cycling (TC)

- Liquid-to-Liquid Thermal Shock Test (TS)
- Mechanical tests such as shock, vibration, solderability

Product-specific hardware (boards, fixtures) for mounting the tested devices together with specific software for stimulating them during the stress treatments are also being developed by RoodMicrotec.

The electrical verification of the tested devices before, after and during (pre-test, interim test, post-test) the stress treatment takes place using our in-house test systems in the certified testing area at RoodMicrotec. Test and product engineers perform test data analysis, failure analysis and data preparation.

We can offer customers services ranging from root cause analysis right through to physical product analysis performed by our in-house ISO/IEC 17025 accredited failure analysis laboratory.

RoodMicrotec is one of the leading one-stop-shop solution providers for qualification & reliability aspects in semiconductor industries.

## Optical/mechanical qualification

The unit OMQ focuses on image sensors and on mechanical investigations of semiconductors and boards. These qualifications are for automotive, space, telecommunication, etc.

The mechanical qualifications include shock, vibration and bump. The focus for optoelectronics is mainly LED.

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

We are known as a professional partner providing services to the industry.

## Key developments in 2015

Revenue in the Business Unit Qualification & Reliability increased during 2015 thanks to new orders for full AEC-Q100 qualification as well as a steady demand for single stress tests. We have also had an even demand in the burn-in area from some of our long-term customers. With the increase in larger orders, we have also improved the project management of our qualification tasks by introducing a more stringent use of a standard project control tool and regular internal as well as customer reviews.

With the increase in larger orders, we have also improved the project management of our qualification tasks by introducing a more stringent use of a standard project control tool and regular internal as well as customer reviews.

A major focus of the activities of OMQ was the winning of new customers in the aerospace field. Together with a key customer, a qualification program was developed and the implementation has started already; main activities will be carried out from the second quarter of 2016.

Due to the increasing number of application areas of image sensors, RoodMicrotec will strengthen and increase its activities accordingly to comply with the test requirements.

## Actions for 2016

- Technical - Chamber temperature control by socket/ device temperature.
- Robustness validation – continue to develop increased stress coverage for our customers using mission profiles and other application specific conditions.
- Continue the project management improvement to be more efficient in performing the large qualification projects.

One focus for the year 2016 is to qualify and characterise LEDs at wafer level on our IC test systems.

RoodMicrotec is participating in a publicly funded project (ParsiFAL 4.0) to adapt the qualification procedures for hybrid microelectronic sensor systems. The company also intends to build up knowledge in the field of qualification and tests assembled on thinned chips mounted on flexible PCBs and to adapt failure analysis methods.

## Failure & Technology Analysis



### Profile

RoodMicrotec's extensively equipped failure & technology analysis laboratory is capable of providing failure, construction and qualification-related analysis of all kinds of electronic parts like wafers, integrated circuits, discrete components, electromechanical components, printed circuit boards and complete printed board assemblies. These various types of analytical investigations can be performed as part of a reliability assessment, including focused ion beam (FIB) services and consulting/line surveys concerning electrostatic discharge (ESD) and certification ESD materials.

## Failure & Technology Analysis

Analysis of defective devices (failure & technology analysis) 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 DPA

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 Analysis

Qualification-related analyses are carried out before and after various qualification tests performed by our own Q&R laboratory. The purpose of these investigations is to determine the influence of these environmental tests on package and chip-related problems.

## FIB service

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. The business unit has a broad European customer base, primarily in the automotive, aeronautical and aerospace industries. Good service is time-driven, so 1.5 shift operation is offered where necessary.

## Key developments in 2015

In the context of our annual seminars, in October 2015 we organised a successful seminar on 'Automotive: reliability of electronic components, robustness validation, qualification, failure analysis, safe launch, complaint handling, statistical methods'. Almost 80 participants from the industry and research institutes joined this year's in-depth training.

In view of the high demand for X-ray tomography, we decided to invest in this field. An upgrade of our existing X-ray system will be installed in January 2016. Beside the possibility of 3D X-ray investigation the upgrade will also offer higher resolution for 2D applications.

## Actions for 2016

The focus that RoodMicrotec now has on supply chain management requires a significant amount of Failure & Technology Analysis activities and to be able to support this. We will continue to invest in our capabilities as well as increase cooperation with other laboratories and institutes.

LEDs are introduced in a wide range of applications, increasing the need for failure analysis. We will respond to this higher market demand.



# 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

### Sales

Sales in Test & End-of-line Services make up approx. 36% of total sales.

In this sector we have a strong reputation and we have built up a relationship of trust with our major customers. Sales in this sector as part of the total sales have diminished over the years. This reduction was expected due to semiconductor manufacturing moving to Asia.

In response to this trend, 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 sales are made in the sectors Supply Chain Management, Test Engineering, Qualification & Reliability and Failure & Technology Analysis.

We focus on high-end work and long-term projects specifically in Supply Chain Management, which further reduces operating risks.

### Costs

Globalisation is putting increasing pressure on prices in all areas, but in particular in Test & End-of-line Services.

This requires constant focus on improving cost management, reducing costs, optimising the test equipment load and intelligent solutions. Salaries and associated pension commitments are also monitored closely, as they make up almost 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 Test & End-of-line Services. 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.

### 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 programme 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 branches in the university cities Stuttgart and Dresden, puts it in a better position to recruit high-quality staff.

## Market risks

We operate in a highly cyclical market, which has contracted in Europe but continues to grow in Asia.

The use of semiconductors, however, continues to rise, also in Europe. They are increasingly being imported from Asia. 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 & reliability, failure & technology 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, in particular in Failure & Technology Analysis and Test Engineering, which have excellent growth perspectives. 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 minimise our risk as an independent European semiconductor company by basing our sales and operations in the Netherlands, Germany and Britain and having agents in France, Italy, Israel and Russia as our main partners.

## Finance

The companies' activities are exposed to a variety of financial risks: market risks (including currency risks), credit risks and liquidity risks.

The companies' overall risk management program - with respect to the use of the main financial instruments - are 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 is not in balance today. These circumstances may influence and/or damage the financing of our activities. Taking into account 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.

### 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.

## Internal risk management and control system

### General

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 implementation of the system has been completed. The various companies, including the holding company in the Netherlands, the branch offices and the business units, work with the same system, which allows for better monitoring of financial results.

Based on what is summarised 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.

# CORPORATE SOCIAL RESPONSIBILITY

## General commitment

RoodMicrotec's mission is to improve the quality of people's lives through the timely introduction of meaningful technological innovations.

In a world where technology increasingly touches on every aspect of our daily lives, RoodMicrotec aspires to be a leading solutions provider in the areas of healthcare, lifestyle and enabling technology, delighting its customers with products and services that meet and even exceed their expectations.

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 may be affected by its activities.

RoodMicrotec duly observes applicable laws and regulations in 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 endeavours to adapt to local situations in order to take the most appropriate approach to possible problems within the bounds of applicable laws and responsible conduct. In this respect RoodMicrotec supports the principle of dialogue and cooperation with all parties involved.

## Human rights

With due regard to the Universal Declaration of Human Rights, which states that all parties in society, including corporate entities, 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.

## Free market competition

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

## Product safety

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

## Privacy

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

## Environmental protection

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

## Commitment towards customers

RoodMicrotec is dedicated to improving people's lives. Its 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 listening to and learning from them, so that it can 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.

## Commitment towards investors

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 a satisfactory return on equity, with the intention if possible to distribute a sustainable dividend payment to 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.

## Commitment towards employees

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

## Right to organise

RoodMicrotec recognises and respects the freedom of employees to choose whether or not to establish, or to associate with, any organisation.

RoodMicrotec respects

- within the framework of (local) laws, regulations and prevailing labour relations and employment practices;
- the right of its employees to be represented by labour unions and other employee organisations, and RoodMicrotec will engage in negotiations, either on its own behalf or through employers' associations, with a view to reaching agreement on employment conditions.

## Health and safety

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

## 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.

## Wages and payment

Remuneration and working hours shall comply with local labour laws and shall be in line with prevailing industry norms.

## Commitment towards suppliers and business partners

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

## 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.

## 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 to refraining from making use of information disclosed to it by third parties if it suspects 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.

## 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 authorised management.

Furthermore, employees who have sensitive information which could influence the price of RoodMicrotec shares and related rights must refrain from directly or indirectly entering into transactions in RoodMicrotec shares and related rights.

Additionally, employees must comply with statutory rules and regulations concerning insider trading with respect to securities of other listed companies.

## 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 favours may only be made or accepted in strict accordance with the General Business Principles (GBP) 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's accounting principles. No unrecorded funds or assets may be established or maintained.

## 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.

## Political payments

RoodMicrotec companies shall not make payments or donations, in money or in kind, to political parties, political organisations or individual politicians, unless such payments are made in strict accordance with the GBP Directives.

## Sanctions

All RoodMicrotec employees must comply with the General Business Principles. Violation may lead to disciplinary action, including dismissal, notwithstanding any further civil or criminal action that may be instigated.

## Whistleblower policy

In order to promote the reporting of violations of the General Business Principles, a whistleblower policy is in place, enabling employees to submit complaints anonymously without fear of the complaints leading to disciplinary action.

## Compliance

Compliance with the General Business Principles is monitored by a compliance officer, who regularly reports to the Board of Management and Supervisory Board on the deployment of the General Business Principles and on ethical issues in general.

Reporting on compliance with the General Business Principles is also an integral part of the Statement on Business Controls issued annually by the management as part of a cascade process leading to CEO/CFO certification of the company's annual accounts.

Compliance processes and procedures are audited by RoodMicrotec's audit committee.

Further information: [www.roodmicrotec.com](http://www.roodmicrotec.com)

## EVENTS AFTER BALANCE DATE

In the beginning of 2016, the following events after balance sheet date events occurred:

- On 3 March 2016, a group of international investors have committed to provide an amount of up to EUR 1.5 million to enable the required investments for the future growth of the company. The financing is built up as follows:
  - A loan of EUR 750,000 as per March 2016: EUR 500,000 with mortgage cover and EUR 250,000 right of pledge on equipment. The total duration of the loan is 48 months with a monthly payable interest of 0.4% on the outstanding gross amount. The loan will be redeemed in 4 instalments in March of each year (2017 10%, 2018 20%, 2019 30%, 2020 40%). The issue price will be at 90%.
  - A standby equity facility of maximum EUR 750,000: in 8 monthly tranches of EUR 93,750 starting in August 2016, ending in July 2017. It is at the discretion of RoodMicrotec N.V. to draw down the equity line, which means that by the end of July 2017 between EUR 0 and EUR 750,000 of the equity line will have been drawn down.
  - In March 2016, the company have granted its existing shareholders and option holders as of 31 March 2016, 5:40 pm, one (1) warrant per twenty (20) shares/ option rights. In total 2,897,589 warrants have been granted and issued. The aforesaid investors will be granted 2,500,000 warrants which have the same conditions. The warrants are added to the existing warrant Series III with ISIN code NL0011556972. The warrant's exercise price is EUR 0.21 and the warrants can be exercised up to and including 31 December 2018.
- Exercise of warrants Series I that resulted in an increase of 47,084 shares (exercise price: EUR 0.15) on 11 January 2016 and exercise of warrants Series I that resulted in an increase of 37,465 shares (exercise price: EUR 0.15) on 8 April 2016.
- Exercise of warrants Series II that resulted in an increase of 239,900 shares (exercise price: EUR 0.13) on 8 January 2016. Remaining 19,100 warrants of warrants Series II expired in January 2016.
- Exercise of warrants Series III that resulted in an increase of 266,622 shares (exercise price: EUR 0.21) on 11 January 2016, issuance of 38,574 warrants on 1 February 2016, issuance of 45,540 warrants on 29 February 2016 and issuance of 40,332 warrants of warrants Series III (exercise price: EUR 0.21), exercise of warrants Series III that resulted in an increase of 44,506 shares (exercise price: EUR 0.21) on 8 April 2016.
- On 1 February 2016, 925,768 shares were issued at EUR 0.22, on 29 February 2016, 1,092,969 shares were issued at EUR 0.18, and on 31 March 2016, 967,963 shares were issued at EUR 0.21.

# REPORT OF THE SUPERVISORY BOARD

## Financial statements, dividend and discharge

We presented the 2015 annual report as prepared by the Board of Management in accordance with Article 26 of the articles of association of the company.

The annual report, prepared by the Board of Management and including the 2015 financial statements, has been audited by Baker Tilly Berk N.V.

The auditor's disclaimer of opinion relating to the financial statements is included on page 103 of the annual 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. We propose to the general meeting of shareholders on 7 June 2016 to:

- adopt the financial statements;
- discharge the sole member of the Board of Management from liability for his conduct of business in 2015;
- discharge the Supervisory Board from liability for its supervision of the management;
- approve that no dividend will be distributed.

## RoodMicrotec in 2015

The strategy change to focusing on long-term and bigger projects is beginning to bear fruit. Although sales growth again lagged behind expectations, the financial results did improve in a number of ways.

For example, EBITDA, EBIT and solvency improved compared to 2014. But more importantly, long-term contracts were signed which will provide more stable and recurring sales over the next few years. The growth prospects for the coming years are also looking favourable, as the new arrangements of the beginning of 2016 show.

The organisation itself is now better positioned for project management and for offering more integrated services. While RoodMicrotec has said goodbye to a number of employees, the organisation, and with it its market position, has also been strengthened with a number of highly experienced people joining the company in key strategic positions.

In addition, the company has also improved its relations with large players such as wafer foundries, assembly houses and design houses.

In the various meetings with the Board of Management we discussed the strategy and also how it fits in with the trends

outlined in the report of the Board of Management.

Responding to these or anticipating them as effectively as possible offers opportunities and is also an interesting challenge.

Overall, it was concluded that RoodMicrotec is now on the right track. In 2016, the further rollout of the strategy is high on the agenda of the Board of Management and therefore also the Supervisory Board.

Due to CEO Philip Nijenhuis' illness, which kept him out of the running for several months, an executive committee temporary took care of the operational side of the business. During this time, the Supervisory Board was reminded how dedicated the entire staff of RoodMicrotec is.

We would like to take this opportunity to express our great appreciation for the commitment shown and to thank the Board of Management and all employees for this.

We are delighted that Philip Nijenhuis has returned to work. He will continue to lead the company until the annual general meeting on 7 June 2016. In the same meeting we will discuss the corporate structure of the company.

In the weeks following our announcements concerning expansion of the Supervisory Board with two members, we have continued our discussion about the desired direction for the company and have come to the conclusion that a one-tier board supported by an Advisory Board is a better model for RoodMicrotec. A key benefit of a one-tier board are the short lines of communication between the executive and non-executive directors, which allow the board to make full use of the knowledge and experience that are present on the board.



### Victor Tee, Supervisory Board Chairman

Born: 1943

Previous positions:

Various management positions at Philips

Various management positions at Siliconix

President and CEO of Millenium Microtech Group

The adoption of the new governance structure is on the agenda of the next general meeting of shareholders.

Although it is the shared opinion of the Board of Management and the Supervisory Board that RoodMicrotec is hindered by the distractions and costs of being a listed company, both also realise that it gave the company the possibility to set up an equity line. This equity line allows RoodMicrotec to invest in modern equipment, and thus in the future.

Without a stock exchange listing, this would very likely have been much more difficult. Even so, cooperation with financially strong partners is still a desirable option for the company and its stakeholders.

## Supervisory Board meeting schedule

The Supervisory Board gives the highest priority to good governance practice. The supervisory board met with the Board of Management 12 times during 2015. An additional 4 meetings were held between individual members of the management and the Supervisory Board.

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 mostly face to face, but occasionally meetings were held using teleconferencing.

During Philip's absence, the Supervisory Board, being part of the executive committee, consulted on a weekly basis with the other members of the executive committee, usually by telephone.

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;
- strategic M&A options;
- the scope and strategy of the company and the related risk profile;
- corporate governance issues;
- succession planning and recruitment;
- risk management;
- remuneration;
- financial audit (including the change of auditor);
- publication of press releases.

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.

## Supervisory Board composition and evaluation

There is currently no separate remuneration and audit committee. All topics are discussed in the joint meetings with the Board of Management, following an independent review by the Supervisory Board.

The Supervisory Board evaluated its own performance over the year 2015. It was concluded that, although all necessary competences in the different areas are sufficiently represented on the Supervisory Board, additional experience and knowledge is welcome. All procedures of the Board are considered adequate for a company of this size.

Zwolle, 26 April 2016

The Supervisory Board  
V.G. Tee, chairman



# ANNUAL ACCOUNTS

## CONSOLIDATED FINANCIAL STATEMENTS

### Consolidated Statement of Profit or Loss

(x EUR 1,000)	2015	2014
Net sales	10,250	9,971
Cost of sales	-1,866	-1,787
<b>Gross profit</b>	<b>8,384</b>	<b>8,184</b>
Personnel expenses	-5,860	-6,058
Other operating expenses	-2,902	-2,848
<b>Total operating expenses</b>	<b>-8,762</b>	<b>-8,906</b>
<b>EBITDA</b>	<b>-378</b>	<b>-722</b>
Depreciation and amortisation	- 930	-792
<b>EBIT</b>	<b>-1,308</b>	<b>-1,514</b>
Financial expenses	-187	-161
<b>Profit (loss) before taxes</b>	<b>-1,495</b>	<b>-1,675</b>
Taxes	-10	-18
<b>Net profit (loss)</b>	<b>-1,505</b>	<b>-1,693</b>
<b>Net profit attributable to:</b>		
Equity holders of the company	-1,505	-1,693
Non-controlling interests	-	-
<b>Net profit (loss)</b>	<b>-1,505</b>	<b>-1,693</b>
<b>Earnings per share</b>		
Basic	-0.03	-0.04
Diluted	-0.03	-0.04

## Consolidated Statement of Financial Position

(x EUR 1,000)	31-12-2015	31-12-2014 revised*	01-01-2014 revised*
<b>ASSETS</b>			
Property, plant and equipment	4,732	5,371	5,250
Intangible assets	2,176	1,741	1,741
Deferred income taxes	1,016	1,133	964
Financial assets	3,002	2,982	2,991
<b>Non-current assets</b>	<b>10,926</b>	<b>11,227</b>	<b>10,946</b>
Inventories	279	344	283
Trade and other receivables	1,659	1,712	2,359
Cash and cash equivalents	667	192	211
<b>Current assets</b>	<b>2,605</b>	<b>2,248</b>	<b>2,853</b>
<b>Total assets</b>	<b>13,531</b>	<b>13,475</b>	<b>13,799</b>
<b>Equity and liabilities</b>			
Issued share capital	5,986	4,788	4,255
Share premium	19,009	18,084	17,851
Revaluation reserve	1,822	1,859	1,668
Retained earnings	-24,990	-23,661	-21,014
Equity, attributable to equity holders of the parent	1,827	1,070	2,760
Non-controlling interests	2,494	2,494	2,494
<b>Total equity</b>	<b>4,321</b>	<b>3,564</b>	<b>5,254</b>
Loans and borrowings	2,301	2,306	279
Retirement benefit obligations	4,864	5,232	4,082
<b>Non-current liabilities</b>	<b>7,165</b>	<b>7,538</b>	<b>4,361</b>
Bank overdrafts	-	-	1,537
Loans and borrowings	41	45	508
Trade and other payables	1,945	2,270	2,081
Current tax liabilities	59	58	58
<b>Current liabilities</b>	<b>2,045</b>	<b>2,373</b>	<b>4,184</b>
<b>Total equity and liabilities</b>	<b>13,531</b>	<b>13,475</b>	<b>13,799</b>

\* Comparative information 2014 has been adjusted due to prior period adjustments on property, plant and equipment.

## OTHER INFORMATION

### GROUP STRUCTURE



#### RoodMicrotec GmbH, (locations in Stuttgart and Nördlingen)

- Supply Chain Management (SCM)/eXtended Supply Chain Management (XSCM)
- Test & Related Services
- Test Engineering
- Qualification & Reliability
- Failure & Technology Analysis
- Opto-electronics
- Contracting
- Consultancy

#### RoodMicrotec Dresden GmbH & RoodMicrotec International B.V.

- Contracting
- Test Engineering

## ADDRESSES AND PERSONAL DETAILS

### RoodMicrotec N.V.

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Website: [www.roodmicrotec.com](http://www.roodmicrotec.com)

### Board of Management

Ph.M.G. Nijenhuis, CEO

### Members of Corporate Management Team

R. Pusch, CSO  
E. Vrielink, CFO  
M. Sallenhag, CTO

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R. Pusch CSO  
E. Vrielink CFO  
M.Sallenhag CTO

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#### Management

M. Sallenhag, CTO

### RoodMicrotec International B.V.

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#### Management

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Chamber of Commerce number 33251008

## Strategic Alliance

### TransPart S.R.L.

Corso Sempione 75, I-20149 Milano, Italy  
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### X-FAB Semiconductor Foundries AG

X-Chain partner network  
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### OSRAM Opto Semiconductors GmbH

LED Light for Your partner network  
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# RoodMicrotec Business Report 2015

