

# Dr. Reinhard Ploss

Annual General Meeting 2018

Munich, 22 February 2018





**Chief Executive Officer** 

# Dr. Reinhard Ploss

- The spoken word prevails -

Dear shareholders,

Our everyday life is not imaginable without semiconductors. Whether you traveled here today by car, rail or air, it wouldn't have been possible without semiconductors. Or think of your smartphone. Perhaps you used a navigation app to find your way here. And while you're here at our Annual General Meeting, you can communicate with business partners, friends or family worldwide at any time.

Semiconductors make it possible to generate and use renewable energies. They protect our identity in passports and bank cards. Our products and solutions pave the way for the digital transformation. Semiconductors are the crucial link between the real and digital world.

And so I welcome you warmly to the Annual General Meeting.

I will start by reporting to you about the 2017 fiscal year and then move on to the trends in our industry. To close, I will look ahead at how we want to take Infineon forward.

Ladies and Gentlemen, Infineon is on a growth path. Infineon is growing profitably – for what is now the fourth fiscal year in a row.

2017 was a strong year. In the first half of the year, we had tailwind from the US dollar, as well as from a market that developed better than originally anticipated. That's why we raised our forecast in March 2017. The wind changed direction in the second half of the year. The dollar weakened more and more. Nevertheless, we ultimately achieved the raised targets.

Group revenue rose by 9 percent to 7 billion, 63 million euros. All four segments contributed to this growth – in particular Automotive, Industrial Power Control, and Power Management & Multimarket. The segment result rose to 1 billion, 208 million euros, which corresponds to a segment result margin of 17.1 percent.

I announced at the Annual General Meeting a year ago that Infineon had raised the long-term target for the segment result margin from 15 to 17 percent. Today, I can report that we are making good progress and already achieved the target in the 2017 fiscal year.

You as our shareholders should benefit appropriately from the success of your company. For the fiscal year 2017, the Management Board and Supervisory Board therefore recommend another increase in the dividend. We thus propose a payout of 25 euro cents per share. That's an increase of 14 percent over the previous year – the fourth rise in a row. Our share price is also performing very positively. Infineon is and remains an attractive investment.

We also feel confident about the current fiscal year. We expect a year-on-year increase in revenue of around 5 percent, with a deviation of plus or minus 2 percentage points. At the midpoint of this forecast, we expect a segment result margin of 16.5 percent. This forecast assumes an average exchange rate of the euro to the U.S. dollar of 1.25.

The weak dollar is causing very strong headwind this year, since we report in euros. Given a similar dollar exchange rate as in the 2017 fiscal year, our anticipated revenue growth would be far stronger. It would increase by 11 percent and hence surpass the already strong figure we posted last year. More and more customers place their trust in Infineon. Our order books are extremely full. We can therefore already assume that Infineon will again grow profitably in the 2018 fiscal year.

## Megatrends change the world – semiconductors help solve the challenges

Why is demand for our semiconductors so high? And why will it also increase further in the future? Because we help solve key challenges facing our society. These challenges are the consequence of fundamental changes resulting from global megatrends.

First: There will be 8.6 billion people living on Earth in 2030 – around one billion more than at present. And the demographics are changing. The proportion of elderly people is increasing in developed countries. And a new, rapidly growing middle classes will emerge in China by 2020, with around 550 million people – according to experts. That's more than the total number of people who now live in the European Union.

Second: More and more people need more and more resources. Yet raw materials are in limited supply: In order to cover global needs sustainably, we would theoretically need the resources of 1.6 Earths. The consequence is clear: climate change! If we don't take countermeasures, the negative impacts on our habitat will increase. Third: More and more people worldwide are striving for prosperity and a better future. They are seeking their luck in cities, which are turning into megacities. Industrialization and urbanization go hand in hand. It's not, however, about simply living adequately. Attractive economic regions must also be attractive places to live.

Fourth: The digital transformation is changing the way we live and work. It offers huge opportunities to improve our life. Increasingly smart devices support us at work and in everyday life. We network digitally with people who are important to us.

These four megatrends give rise to key growth drivers for Infineon: Mobility, renewable energies and efficient use of electricity, digitalization, and data security.

Microelectronics makes a crucial contribution to:
> supplying more and more people with energy,
> enabling a higher standard of living,
> and reducing the use of resources.

#### The car of the future – electric, connected and automated

With regard to megatrends, one of the major challenges is mobility. That relates to mass transport by train and plane, as well as private vehicles.

The car is an expression of prosperity and individual mobility. It's a consequence of industrialization. That's demonstrated by the growing demand in emerging countries, such as China or India. We expect the number of cars to grow at an average annual rate of globally around 2.2 percent until 2021. Infineon will benefit from that in two respects: First from the higher quantities of vehicles and second from the growing number of semiconductors per vehicle.

Around 90 percent of the innovations in vehicles are now based on electronics. And experts estimate that it will stay that way in the years to come. As a result, the convenience, safety and eco-friendliness of cars will keep on improving.

Semiconductors are a key component of these advances in the car. Infineon's focus is on the vehicle's essential functions: drive, safety and convenience. We are at the heart of the car.

Infineon is benefiting especially strongly from the trends toward electro mobility and autonomous driving.

Semiconductors worth an average total value of 355 US dollars are currently installed in a car with a conventional combustion engine. That figure is about twice as high – 695 US dollars – in hybrid, plug-in hybrid and electric vehicles.

Power semiconductors account for three-quarters of the extra 340 U.S. dollars.

A core component of the electric drive are modules such as the one here is our HybridPACK<sup>™</sup> Drive. A masterpiece from our engineers.

It controls the electric engine's speed. We showed you a predecessor model at an earlier Annual General Meeting. The new generation delivers the same power, but is a whole 30 percent smaller. That's leading technology from Infineon: Innovation that increases performance and cuts costs. That's electro mobility we can also afford.

Our module helps power the latest generation of electric cars. One of those cars is celebrating its European premiere here in the lobby:

The ES8 from NIO, a Chinese company that was only founded back in 2014. The ES8 is an SUV that is driven solely by electricity, has seven seats and a power of 480 kilowatts, in other words, around 650 hp.

Four of our modules drive the ES8. The ES8 incorporates a large number of different semiconductors worth a total of around 900 US dollars.

Why do both innovative companies like NIO and established car manufacturers opt for Infineon? There are four good reasons for that:

First: We contribute more than 40 years of experience in automotive electronics. Infineon does not just deliver components. We understand the overall system that is the car.

Second: We have the necessary production capacities. And we are able to expand them quickly as and when required. Infineon is the partner for growth in electro mobility of the future.

Third: We deliver the right performance and required quality.

And fourth: Infineon has the technologies of the future.

I have brought you the latest module from our laboratories today. Instead of silicon we use the compound semiconductor silicon carbide here. The advantage is a smaller surface with chips and double the power of the silicon-based module.

The trend toward the e-car is picking up at a tremendous pace. We see that in our order books. Our know-how, products and solutions are paving the way for the drive of the future.

Infineon also leads the way when it comes to driver assistance systems. Last year I talked to you about "Vision Zero." It describes one of the major goals of the automotive industry: Vehicles are to become so safe that no accidents involving serious or even fatal injuries occur. Around 90 percent of those accidents today are caused by human error.

Driver assistance systems can help prevent such errors or mitigate their consequences. They support drivers and increase traffic safety. One example: The car can correct a driving error in critical situations – in extreme cases by automatically steering or braking it. And, a computer does not experience any moment of shock.

One impressive example is the Audi A8, which you can likewise view in the lobby. It's the world's first series vehicle to boast Level 3 autonomy functions.

The ability of cars to self-drive is split into levels: In Level 3, drivers can take their hands off the steering wheel for a certain time – while parking, in slow-moving traffic, in tailbacks and even, without any risks, at high speeds on the highway.

Secure autonomous driving is enabled in the Audi A8 by Infineon products.

- > Our radar sensors help recognize the situation in road traffic.
- > Our AURIX<sup>™</sup> microcontroller is part of Audi's central driver assistance controller. In automatic mode, it makes sure that the right control commands are issued: for steering, braking, the engine and transmission.
- > Finally, power semiconductors ensure that the required actions are carried out correctly.

What are the reasons for Infineon's strength in the field of autonomous driving?

On the one hand, our outstanding technology, zero-defect quality and comprehensive understanding of how the car's components interact.

However, there is also our ability to develop products that deliver the reliability we know from planes at a price suitable for cars.

Functional safety is a skill we've systematically built up over the past years. And that plays a major part in setting us apart from the competition. As a result, we are standing on a broad base. New-generation cars are connected to an increasing extent. That enables many new services: from information on alternative routes in the event of tailbacks to software updates without the need to take the car to a workshop. And it will significantly improve performance in autonomous driving.

However, connectivity also harbors the risk of unauthorized access. That's why secure transfer of data must be ensured. That goes for communication between on-board systems, with other vehicles and with the Internet and transport infrastructure.

Infineon offers solutions for a secure vehicle architecture. The expertise and products of our Chip Card & Security segment in the field of IT security are therefore growing in importance for our automotive customers.

Infineon is also benefiting from a new statutory regulation. From March 2018, all new cars in Europe must have an emergency call function. We supply chips for the built-in SIM cards, called eSIMs.

The car of the future will run on electricity, drive autonomously to an increasing extent, and be connected. That means sustainable growth for Infineon.

## Semiconductors are the crucial link between the real and the digital world

That brings me to digitalization, which is changing all areas of our life. These changes offer the opportunity to improve people's working and living conditions. To do that, we connect the real with the digital world. In a few years' time, 30 billion devices will be connected with each other and we will be part of this real/digital world. However, that doesn't mean we only think in zeros and ones. Instead, we have to be able to use the digital world simply and intuitively. Semiconductors play a key role in this interaction between man and machine.

Today, man and machine usually communicate via the keypad and display. Yet voice and gesture control open up new possibilities: They are a much more natural form of interaction.

Infineon strengthened itself in this field in the past fiscal year: for example, through its strategic investment in the company XMOS in the UK.

Today's voice recognition systems can hardly distinguish between two speakers or recognize a TV. Yet that's a vital requirement for voice control to work smoothly. Only then will people want to use it.

In 2017, Infineon and XMOS presented a solution that will significantly improve such systems. Our radar sensors detect the speaker's position in the room. That makes it possible to direct the voice recognition system our microphones use toward the speaker. That's similar to us turning our head to understand someone better.

This solution is a good example of our "From Product to System" strategy.

Robots are a further example of man-machine interaction. They're growing in importance in industry and everyday life. We initially expect to see growth in industrial robots, but also in the service arena in the medium term.

Infineon has a good starting position, since we boast the technologies a robot needs:

- > Power semiconductors
- > Sensors
- > Microcontrollers
- > IT security

We are building on them. The goal is to understand how the components work together effectively and to optimize them. Here, too, we score points with system understanding.

Germany has a very active start-up scene in this field and we are collaborating successfully with it. In the lobby, you can get to know a robot that uses chips from Infineon. It goes by the name "Panda" and has been developed by the company Franka Emika from Munich.

Panda has highly sensitive sensors. If it as much as knocks into something slightly, it responds immediately and stops. Panda is a cooperative robot, which means that people can interact with it at no risk.

And the robot is versatile and can be used not only in the factory. It could help nursing staff in their demanding care work. What makes Panda so special is that it can be operated and programmed intuitively. Try it out!

# Digitalization needs energy – used efficiently and generated environmentally-friendly

Digitalization is intended to improve our life. That also includes making more efficient use of the planet's resources. Digitalization makes an important contribution to that. Think about concepts for optimizing urban mobility. Or smart solutions in our homes, offices and factories for turning on the electricity and heating only when we need it.

Of course, a better life also means convenience: The next vacation, shopping or simply deciding on which movie theater to go to – most things are no longer possible without the Internet.

What we often forget is that digital services also use a lot of energy. That starts with a simple search on the Internet and affects the entire Internet of Things.

To achieve our goal of saving resources, we must first use energy as efficiently as possible and, second, generate it in a way that's as environmentally-friendly as possible.

In 2014, Google consumed roughly as much power as 1.4 million private German households. That's why energy efficiency is very important for companies like Google, Facebook or Microsoft. They operate data centers containing up to 40,000 servers.

The need for computing power will increase even further with the Internet of Things and artificial intelligence. Infineon has the technologies to supply the digital world with electricity with great efficiency. Energy losses in supplying power can be reduced by using components based on the new semiconductor material gallium nitride. More and more customers are using products from our CoolGaN™ family, for example, in high-performance power supply units for data centers.

The advantages: less energy loss, lower system costs, a more compact design and reduced operating costs.

However, switching from silicon to gallium nitride demands significant adjustments to the customer's system architecture. We support them in that – because we understand the system "Power".

That brings me to another aspect of the energy requirements for digitalization: More and more electrical power needs to be generated – where possible without CO<sub>2</sub> emissions.

Here too, companies like Apple and Google are increasingly recognizing their responsibility. They are using wind and solar power to a growing extent in order to supply their cloud services with electricity.

Renewable energies are an important growth area for Infineon. Let's take the example of solar energy.

China is expanding vigorously in this area. 2017 was a record year: New solar installations with an output of more than 40 gigawatts were erected, a figure that might even rise to 50 gigawatts in 2018.

By comparison: In Germany, solar systems with a total capacity of around 40 gigawatts have been installed since the end of the 1990s.

In solar panels, inverters convert the direct voltage that is generated into alternating voltage. Only then can the energy be fed into the grid.

Semiconductors from Infineon have always been key components in the inverter. We are now using components based on silicon carbide. Losses in energy conversion can thus be reduced.

The inverters can be produced much smaller, lighter and 10 percent cheaper. At the same time, there's an increase in the value of the built-in semiconductors. That's good for the customer and good for Infineon.

That's possible because we develop products and solution with an eye to the system our customers have:

Infineon connects the real and digital world – in an eco-friendly way.

## Infineon develops IT security for the digital world of tomorrow

Digitalization and greater networking increase the demands placed on IT security. Notebooks and tablets, infrastructure and industrial plants must be protected effectively against unauthorized access.

Two skills make Infineon a leading provider of security solutions:

- > First, it's necessary to respond rapidly to new developments. That's because the forms of attack keep on changing.
- Second, it's necessary to envision what tomorrow's technologies will make possible.

Today's connected vehicles, passports and industrial plants are also to remain well-protected in 10 to 20 years' time. We must therefore take into account the risk of attacks that will only be technically possible in the future.

One strategy is to keep on updating systems. That can solve many problems, but it's not enough to deliver long-term protection.

An example: Quantum computers, the high-speed computers of the future, will allow a host of new applications. At the same time, they may become a threat, because they will be able to crack the encryption methods currently used a lot faster than today's computers.

That's why Infineon is working on the technology, termed post-quantum cryptography, that will be needed then.

With success: Our developers have succeeded in mapping special algorithms on conventional security controllers. Quantum computers are also not able to breach them or can only do so with very great difficulty. At the same time, they are also resistant to attacks from present-day computers.

These algorithms will be used in many applications in the future: cash cards, e-health cards or electronic passports. And we will be the first to develop the market-ready products.

Infineon is already thinking today about solutions to the challenges of tomorrow.

#### Infineon is well-positioned worldwide

Our company has become more and more international in the past years. We are well-positioned and successful in innovation and growth markets: Asia, in particular China, the U.S., Japan and, of course, Europe.

Each market has its specific requirements. And we adapt to that – in line with our strategy "From Product to System".

#### What is our focus?

- In the U.S., we are focusing on innovation and are active in Silicon Valley, where we are developing, for example, a radar-based blood pressure sensor. Here we are part of the dynamic of the Internet of Things and artificial intelligence.
- > China is increasingly becoming a place to do business that wants and demands on-site development. We are meeting that need by building up expertise and strengthening local responsibility. China is the leading market for electro mobility and renewable energies.
- > Japan, with its large market for automotive electronics and industry, has particularly high quality requirements. We have tackled that challenge and won market share there.

One thing applies to all the regions: Microelectronics is increasingly becoming a focus of interest – most of all in China: 1 billion U.S. dollar are invested here each month in the semiconductor industry. However, the U.S. and Europe have also declared microelectronics to be a strategic area and are supporting research and development. One example: In addition to project funding, Austria awards a research premium of 14 percent for innovation activities. Germany is likewise active, which is important for it to catch up on an international level in this future technology. It's necessary to work together more closely and pool capacities. A large platform is therefore required to compete globally. The EU offers that large platform.

The Europe of the future is a digital Europe. And a leading position is defined by leading technology. That requires politics, science and industry to work together closely. It's good that so much progress has already been made in this regard.

It's also clear, however, that the joint involvement has to be speeded up and expanded. We therefore greatly welcome Infineon being included in the political discussion and being able to actively contribute to formulating concrete measures. Europe's goal must be to shape the digital transformation from a leading position. Now is the time to act.

Germany and Europe are Infineon's know-how base. This is where we carry out research and development for the future.

## Our manufacturing strategy is a competitive advantage

The semiconductor industry is currently experiencing strong economic activity. With its 18 factories on three continents, Infineon is excellently positioned to grow further.

Our manufacturing strategy is based on the principle that we aim to stand out in terms of cost and/or performance by producing in-house. Where that's not the case, we cooperate with production partners. We thus protect our know-how, optimize our capital employed and are also agile. Delivery capability is vital, especially given the strong level of demand at present. Thanks to its manufacturing strategy, Infineon can swiftly expand its capacities. Our customers have also realized that. Our manufacturing strategy has become a competitive advantage.

We are currently expanding our capacities so that we can keep on growing profitably. Of course, we are doing so judiciously. We benefit in this from cost advantages, such as in the innovative production of power semiconductors on 300-millimeter thin wafers in Dresden and Villach. Infineon is the world's only company to master this production technology.

Investments in 300-millimeter capacities are far lower than those in 200-millimeter capacities. We have already benefited from this investment advantage for some time and are now also beginning to see an advantage in productivity. We have now reached the cost cross-over.

Faster ramp-up of 300-millimeter production in Dresden is essential to cater for demand in the current boom phase.

This initially entails further investments and start-up costs. It's worth it, however, since we will be able to deliver and thus win more customers.

Our manufacturing strategy is paying off.

#### From Product to System

Infineon is one of the world's leading semiconductor companies. And we aim to make sure things stay that way. To be well equipped for the future, we are building up additional expertise – in line with our "From Product to System" strategy.

We need to secure and expand our leading position in our core competence, power semiconductors. I have already spoken about the use of silicon carbide and gallium nitride.

We also develop products that complement the function of our power semiconductors. Digitalization and expansion of functionality demand new skills. We have to understand how our customers' systems work. Then we will be able to implement appropriate algorithms and software for them.

We have made good progress in this regard. One example of that is our digital motor controller platform iMOTION™ for industrial systems and domestic appliances.

In iMOTION<sup>™</sup>, we bring together our power semiconductors and logic chips for controlling to create a compact solution. In addition, we supply the second generation of iMOTION<sup>™</sup> as standard with a development kit, including software. Our customers only need to define a few parameters.

The bottom line is: lower system costs, less development overhead and shorter development times. A quicker time to market coupled with a high level of reliability – that's what you might call instant electronics: stir once and it's ready to go.

#### Infineon shapes the future

To summarize, ladies and gentleman, Infineon was very successful in the 2017 fiscal year. We met our raised targets, despite the increasing headwind from the weaker US dollar.

And Infineon is continuing to grow. We operate in markets that continue to hold out the promise of success. They include: Mobility, renewable energies and efficient use of electricity, digitalization, and data security.

Semiconductors are the crucial link between the real and digital worlds.

Megatrends are changing our society and posing challenges for us. Infineon makes a crucial contribution to solving those challenges.

We make life easier, safer and greener.

We aim to grow faster than the market in the current fiscal year – and do so profitably. We are investing in our production and expanding our capacities. We can cater for growing demand for power semiconductors and sensors better than many competitors.

We capitalize on focus, system understanding, and technology leadership. We are rigorously developing our "From Product to System" strategy further and expanding our expertise in the field of software. Ladies and gentlemen, your company, Infineon, is growing: That's very vividly illustrated not least by our headquarters here near Munich. Work on the new building at Campeon will soon be completed. In a few weeks it will offer additional space with more than 800 workplaces.

More than 38,000 people now work for Infineon worldwide. And that figure is rising. Also in Germany. That shows: By leveraging digitalization in a timely and the right way, you shape the future and create jobs. In production, as well.

Our employees give their best day in, day out, to make Infineon successful. So on behalf of the entire Management Board: Thank you for your outstanding commitment!

Dear shareholders, Infineon is growing profitably. For what is now the fourth fiscal year in a row. We will continue on this successful course moving ahead.

We deliver what we promise. And believe me: We are up to much more.

I thank you for your trust.

Infineon Technologies AG

81726 München Deutschland