



A passion for innovation

Infineon Technologies Austria

Fiscal year 2017

www.infineon.com/austria



We make life easier, safer and greener – with technology that achieves more, consumes less, and is accessible to everyone. Microelectronics from Infineon is the key to a better future.

Part of your life. Part of tomorrow.



Contents

The company	4	Collaboration	20
Infineon in Austria	5	Research collaboration	20
Infineon at a glance	6	Educational collaboration	21
The fiscal year 2017	7		
Strategy 2025	9	People as a success factor	22
Global business activities	10	Our success is down to our people	23
		Sustainable management culture	24
Innovation	12	Embodying diversity together	25
Market success through innovation	12	Combining career and family	27
		Initiatives for young people	28
Research and Development	14	Recruitment and staff development	29
Getting to the top with effort and excellence	15		
		Innovation factory	30
R&D locations	16	Leading factory for innovative semiconductors	31
Villach: Full power for greater energy efficiency	16	Quality as a key criterion	32
Graz: Contactless, secure, mobile	18	Excellence from the idea through to the product	33
Linz: High-frequency development	19	The driving force for technology leadership	34
		The factory of the future	35
		Social responsibility	36
		Key driver for a better future	37
		A holistic approach to sustainability	38

From an extended workbench to a pioneer of digitalization

- 2017 Global competence center for silicon-carbide (SiC) semiconductors in Villach
- 2016 Expansion of global business responsibility after integration of International Rectifier
- 2015 Building complex for research, development and production with Industry 4.0 pilot area erected in Villach
- 2013 Start of chip production on 12-inch (300 mm) thin wafers
- 2012 Expansion of production and new R&D building in Villach
- 2006 Launch of competence center for automotive and industrial electronics (KAI)
Opening of development center in Bucharest, Romania
Opening of front-end factory in Kulim, Malaysia
- 2004 Establishment of IT services in Klagenfurt
- 2003 Partial transfer of headquarters for industrial electronics to Villach
- 2000 Infineon Group goes public
Start of chip production on 8-inch (200 mm) wafers
- 1999 Siemens semiconductor division becomes Infineon Technologies
Joint venture between DICE Development Center and Johannes Kepler University in Linz
- 1998 Construction of development center in Graz
- 1997 Villach becomes global competence center for power electronics
Start of chip production on 6-inch (150 mm) wafers
- 1987 Expansion of development center in Villach
- 1984 Start of chip production on 5-inch (120 mm) wafers
- 1979 Construction of development center for microelectronics in Villach
Start of chip production on 4-inch (100 mm) wafers
- 1972 Construction of production plants on the current Villach site
- 1970 Siemens diode production is launched in Villach



Welcome to the big world of very small things

Infineon Technologies Austria AG is a subsidiary of Infineon Technologies AG, a world leader in semiconductor solutions that make life easier, safer and greener. The Austrian head office is in Villach, with further branches in Klagenfurt, Graz, Linz and Vienna.

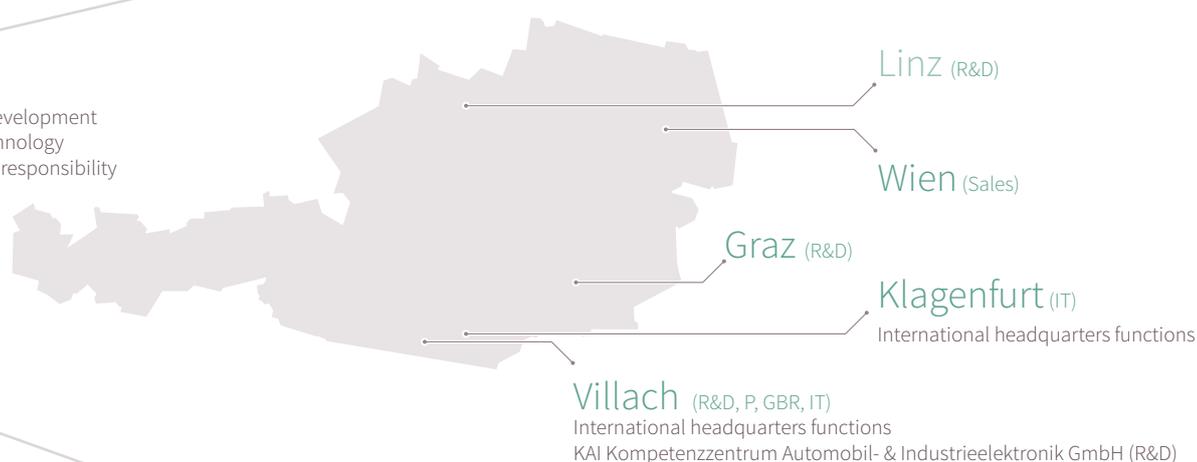
Besides Germany, Infineon Austria is the only subsidiary within the Group that pools competencies for research and development, production and global business responsibility. Our employees from around 60 countries have established Infineon as a leading company in Austria. Infineon has been one of the most research-focused companies in Austria and a pioneer for digitalization for many years.

Part of your life. Part of tomorrow.

Small, barely visible, semiconductors have become an indispensable part of our daily lives. Chips from Infineon play an essential role wherever energy is generated, transmitted and used efficiently. They safeguard data communication, reduce harmful emissions produced by cars and are paving the way for driverless vehicles.

Whether they are in your car, your smartphone, your fridge, your debit card and passport, or in industrial equipment – you can find expertise from Infineon Austria in many everyday applications.

R&D Research and development
 IT Information technology
 GBR Global business responsibility
 P Production



Combined on one site



Infineon Technologies Romania SCS (R&D)

Infineon Technologies (Kulim) Sdn Bhd, Malaysia (P)

Infineon at a glance

Facts and figures 2016/17



Infineon Technologies AG

Sales €7,063 million

Employees throughout the Group 37,479

Infineon Technologies Austria Group

Sales €2,539.6 million +38%*

Earnings before tax €176.5 million +11%*

Total investments €150.2 million

of which investments in property, plant and equipment €113.1 million

of which investments in intangible assets €37.1 million

Total employees 3,785 +4%*

Proportion of women overall 16.5% +1.9%*

Employees in R&D 1,547 +8.5%*

Employees in product and process development and quality assurance approx. 460

Additional permanent external employees via third companies approx. 1,840

Degree candidates and doctoral students** 126

Apprentices 51

Interns and vacation/industrial placements** 974

Research & Development

R&D Expenditure €428 million +4%*

R&D Expenditure as a percentage of sales 17%

Initial patent applications 214

Production

Products (basic types) 1,844

Production volume 14.3 billion chips

Audits and customer visits 17



*compared to the 2015/2016 fiscal year

**Aggregated values.

Fiscal year 2016/2017, as of September 30th 2017,
including domestic shareholdings

The fiscal year 2017

The dynamic growth of the Infineon-Technologies-Austria Group continues. In the fiscal year 2017 (accounting reference date 30 September), **sales** reached a new all-time peak at €2,539.6 million, exceeding the previous year's sales by €700.1 million or 38 percent. This clear increase in sales derives in part from the consistently high demand for power electronics on the global market. In addition, the Infineon Group greatly expanded the scope of Infineon Austria's business responsibility for these product lines in mid-2016. This additional product business developed its full impact on sales in the 2017 fiscal year.

The **earnings before tax** were €176.5 million, an increase of €18 million or around 11 percent compared to fiscal year 2016. **Expenditure** of €428 million was made on **research and development (R&D)**. This new record value corresponds to a research quota of around 17 percent of total sales. In total, **investments** of €150.2 million were made, of which €113.1 million were invested in property, plant and equipment while the remaining €37.1 million served to finance intangible assets. As per the accounting reference date, Infineon Austria employed 3,785 people, around four percent more in than the previous year.

The Austrian **R&D sites** in Graz, Linz and Villach will be **expanded** to include an **additional 860 R&D workplaces**

by 2020. This will resolve the lack of office and research space and create infrastructural capacities for the growth predicted for the coming years.

As of October 2017, Infineon Austria has taken on the **entrepreneurial responsibility** for Infineon Technologies Power Semitech Co. Ltd. This Group company designs and produces intelligent power modules for large household appliances. Infineon Austria coordinates the global marketing and product business for this product line.

In Villach, the Infineon Group invested €35 million in the expansion of the development and production activities for the **new semiconductor material silicon carbide**. The innovation factory in Villach is the global competence center for silicon carbide and gallium nitride.

The completion of the Industry 4.0 pilot area launched the **next step of digitalization** at the production site in Villach. Development and production will be more closely linked, data will be used more intensively, and new career profiles and customized training programs will be created.

Infineon Austria is a driving force behind a new research topic in the field of optical distance measurement in vehicles with **Lidar** (Light detection and ranging). Components for this laser technology are being developed in Graz and research into production technology is being conducted in Villach.



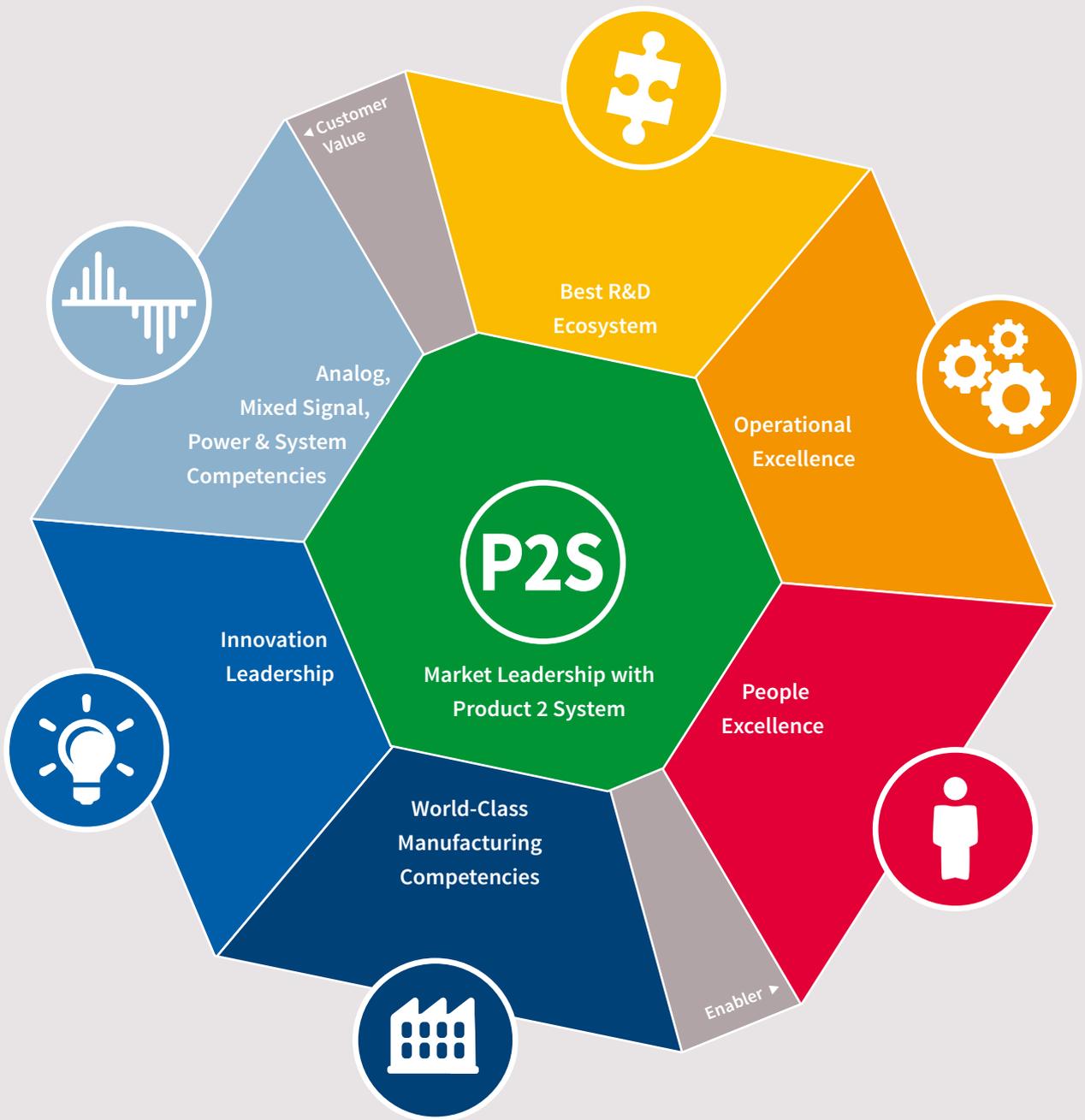
The Board of Infineon Technologies Austria AG:

Dipl.-Ing. Dr. Sabine Herlitschka, MBA
CEO and Technology Director

Area of responsibility: Research & Development,
Human Resources, Communications

Dipl.-Ing. (FH) Oliver Heinrich (left), CFO
Area of responsibility: Finance, IT, Purchasing,
business responsibility for product lines,
Business Continuity and Compliance

Dr. Thomas Reisinger (right), Operations Director
Area of responsibility: Production, Technology,
Quality Management, Infrastructure and Logistics



The guideline for sustainable growth

Being internationally competitive from our location in Austria and optimally contributing to Group success – these are the sustainable objectives of Infineon. The Strategy 2025 “SMART Growth” is the guideline for this mission. The seven coordinated target areas are based on the strengths of Infineon in Austria:

- 
P2S Market Leadership with Product 2 System
 The company’s excellent understanding of applications supports the development of system solutions to provide the optimal benefits for customers and a strong position on the market.
- 
Analog, Mixed Signal, Power & System Competencies
 The Austrian development areas strengthen the entire Group with their specific competencies.
- 
Innovation Leadership
 A strong innovation culture facilitates the development of leading solutions for the global market.
- 
World-Class Manufacturing Competencies
 Exceptional manufacturing skills differentiate and create a clear competitive edge.
- 
Best R&D Ecosystem
 Best research and development service through the active shaping of the framework conditions and networks.
- 
Operational Excellence
 Quality, reliability and effectiveness in all processes promote continuous improvement.
- 
People Excellence
 Outstanding talents, diverse teams and an ideal environment facilitate top performances.

The mission: to achieve global competitiveness and make the optimal contribution to the Group’s success

Local expertise, global responsibility

Infineon Austria represents an effective combination of innovative research, high-quality production and successful marketing. The Group utilizes this expertise, and has assigned global business responsibility for eleven product lines from three divisions to its subsidiary in Austria, the latest of these being the product business for the Korean Group company Infineon Technologies Power Semitech Co. Ltd.

Energy efficiency as a driving force

The subject of energy efficiency occupies an important position for Infineon. The goal is to provide chips and system solutions that reduce consumption throughout the entire energy cycle. From its location in Austria, the Infineon Power Management & Multimarket Division handles responsibility for the product lines Medium Voltage Power Conversion, Computing, Power Management Devices, Power Management ICs, High Voltage Power Conversion and Low Power ACDC ICs. Typical applications for these products are mains adapters for notebooks, smartphones and tablets. Furthermore, 50 percent of the servers around the world use Infineon power semiconductors for power conversion. These energy-saving chips are also used in wireless charging technology.

Energy efficiency meets mobility

Power semiconductors from the Chips & Discretes product lines, and Intelligent Power Modules and Gate Drivers from the Infineon Industrial Power Control Division are an important part of the electronic controls of drive mechanisms. These include for example inverters in refrigerators, pumps, fans and compressors, as well as motor controls in above-ground and underground trains.

The product lines High Voltage Driver and Electric Drive Train from the Infineon Automotive Division run the

global business in electromobility subsectors such as control electronics components for electric vehicle drive mechanisms from Austria.

Recognized global player

Infineon's success in the global markets also confirms the success of Austrian business activities: The Group has maintained its world market leadership in power semiconductors for years. In 2017, the Federal Ministry of Economy, Leitbetriebe Austria and the Austrian Federal Economic Chamber awarded Infineon Austria the HERMES. Wirtschafts.Preis in the category „International Companies“ for its excellent export achievements.

Worldwide IT management in Klagenfurt

Infineon Technologies IT Services GmbH, headquartered in Klagenfurt's Lakeside Science & Technology Park, is another global competence center. Since 2004 it has been globally responsible for Infineon's IT infrastructure, including the design and operation of all servers, PCs and networks, and the IT Service Desk, the central point of contact for all service requests.

One of the key tasks of the Klagenfurt IT experts is running the worldwide computer center for development at Infineon. In order to ensure the increased IT security requirements, further global functions such as access control, video surveillance and security operation, as well as the global operation of all Infineon internet services, have been relocated to Klagenfurt. Furthermore, essential parts of the Factory Integration and IT Enterprise Application Platforms areas are also supported in Klagenfurt, namely software solutions for microchip production and the operation of business process platforms such as SAP.





Industrial Power Control

- Chips & Discretes
- Intelligent Power Modules
- Gate Driver



Automotive

- High Voltage Driver
- Electric Drive Train



Power Management & Multimarket

- Medium Voltage Power Conversion
- Computing
- Power Management Devices
- Power Management ICs
- High Voltage Power Conversion
- Low Power ACDC ICs



Chip Card & Security

● Divisions
● Infineon Austria product lines

Market success through innovation

New ideas, new routes and new solutions are an essential basis for success for Infineon and for Austria as a technology site. For a number of years Infineon has been pursuing a strategy that focuses on excellent innovation management. The success of this approach and methodology in technology management was recognized by a Europe-wide study conducted by the Fraunhofer Institute in 2017. Infineon Austria was ranked among the top five of the 272 participating companies.

The right culture for innovations

Innovations do not come from thin air. They require a company with a lively and competitive culture of ideas, involving all areas and levels equally throughout the year: employees and partners such as universities, research institutions, start-ups or the maker community. The annual innovation projects are one element that characterizes this culture. In this internal competition, Infineon finances the best project ideas for one year.

The interdisciplinary and interactive exchange of experiences and ideas is the main focus of the Innovation Days, which take place every year. During this event, excellent achievements are also awarded the Infineon Austria Innovation Award. Over 400 projects have been submitted so far. The results facilitate new inventions, and thus the development of new market potential. The awards

include the Learning Award, which honors the lessons learned and measures taken as a result of mistakes that have been made. A prize is also awarded for PhD theses. In the last six years, more than 260 inventions have been registered from the submissions received. These include Power300, the development and production of energy-saving chips in 300-millimeter thin wafer technology. A real success story: Power300 was awarded the Austrian State Prize for Innovation in 2013.

Within the scope of our employee suggestion scheme, employees contribute innovative ideas for improvements. In the fiscal year 2017, the program entitled „Your Idea Pays“ (YIP) realized 1,242 improvement suggestions, amounting to a financial value of €8.6 million.

A race for the coolest ideas

The new semiconductor material silicon carbide (SiC) and Infineon Austria have been an innovative duo for a long time now. Diodes produced in Villach are some of the first commercially available SiC products in the world. In order to benefit from the current positive market environment for this material of the future, Infineon Austria has launched the SiC Race, a global competition for the best SiC projects submitted by students. This unconventional initiative demonstrates Infineon's openness to young scientists, new approaches and ideas.

Best Practice

2017 Fraunhofer Survey: Top 5 out of
272 European companies in technology management



Lively culture of ideas

1,242 suggestions for improvements realized with a value of €8.6 million (FY 2017)

Ready, SiC, Go!

Global competition for the best silicon carbide projects submitted by technical students



The largest research facility
for microelectronics in Austria

214 initial patent applications
€428 million spent on R&D
17% of sales income spent on R&D
1,547 employees working in R&D

Getting to the top worldwide with effort and excellence

For a number of years, Infineon Austria has been one of the most research-focused industrial companies in Austria. In the fiscal year 2017, about 17 percent of total sales went into research and development.

There are 1,547 experts working in the development centers in Villach, Graz and Linz, developing new solutions, technologies and innovations. Nearly a quarter of the R&D staff of the entire Group is employed by Infineon Austria.

Shaping Austria ...

Local competencies and global research tasks have been continuously expanded at Infineon Austria in recent years in the areas of energy efficiency, mobility and security. The recipe for success includes short development periods, the highest quality and a focus on customer-oriented system solutions with a “from product to system” approach. The thematic focal points include the development of power semiconductors and thin wafer technologies, as well as sensors, micromechanics, new semiconductor materials and contactless security applications.

... shaping tomorrow’s world.

Quantum computers are still a predominantly theoretical concept at present. However, thanks to their computational power, they should perform certain calculations simultaneously and much faster than ever before. This means that attacks on the currently secure encryption of identification documents will be a very likely scenario within the next 15 to 20 years. With the support of the experts from the Graz Development center, Infineon has achieved a breakthrough in this field: the first post-quantum cryptography on a contactless security chip commonly used for ID-documents. This means that Infineon is already a pioneer in developing encryption methods that will be able to withstand the power of future quantum computing.

Top 3 in Austria

In 2016, Infineon Austria was ranked among the 3 most research-focused industrial companies in Austria in the top 500 list issued by the business magazine “trend”.



Full power for greater energy efficiency

Power semiconductors play a key role in electronic devices. They convert mains power from the outlet to the requirements of the respective device, with the aim of minimizing energy losses that mostly take the form of exhaust heat. The activities in Villach therefore focus on the development of increasingly small and energy-efficient chips to be used in automotive, manufacturing and consumer electronics.

Technology from Villach can be found in:

- > Wireless chargers
- > LED lighting
- > Servers
- > 5G mobile infrastructure
- > Photovoltaic systems and wind parks
- > Antilock braking systems
- > Electronic power steering
- > Electric and hybrid vehicles
- > Charging infrastructure for electric vehicles

More efficient and smaller energy-saving chips

The many years of development experience in Villach are bearing fruit: Infineon is the world market leader in power semiconductors. To maintain this success, the teams in Villach are already working on the next generation of chips, made of new materials such as silicon carbide (SiC) and gallium nitride (GaN). These chips can convert power much more efficiently, making units smaller and lighter. Current applications include charging stations for electric cars with significantly shorter charging times or the mobile infrastructure of 5G-networks.



Smart, safe and clean vehicles

The goal in the automotive research field is to design the next generation of vehicles. The top trends are: electromobility, autonomous driving and increasing integration within and between vehicles. Power electronics, microcontroller solutions and sensor technologies designed in Villach are fundamental to these developments.

For example, linear Hall sensors and angle sensors are being developed in Villach for electronic steering. Another well-known application is the anti-lock braking system (ABS), where magnetic sensors measure the wheel speed and transmit the data to the corresponding control unit in the vehicle.

A more recent development is 3D magnetic sensors, which are able to measure movements in all directions. This makes them universally deployable, amongst other things for joystick-type applications in cars and consumer electronics. Functional safety plays an ever greater role; this applies to both the self-detection of malfunctions and the countermeasures introduced. The result is intelligent cars with greater safety, increased convenience and – at the same time – lower energy consumption.



Analog, digital and more

Technical expertise at Villach contributes to the connection of the real with the digital world. Here the focus is on the development of circuits that process digital as well as analog signals.

Specifically, the development teams focus on analog mixed-signal solutions in the areas of power management, microcontrollers, clock systems, sensors, driver circuits for high-voltage switches and converters, amplifier circuits and various other analog circuits.

These components are used in many different applications in telecommunications, healthcare, computer electronics and the automotive industry. For example, the MEMS-based (micro-electromechanical systems) silicon microphone, used millions of times around the world, was also partially developed in Villach.

since 1979

Did you know that energy-saving chips from Villach are an essential component of wireless charging technology? The current is transmitted from the charging station to the device quickly and easily while saving energy and avoiding annoying clumps of cable spaghetti.



Global competence center
for power electronics

Contactless, secure, mobile

While Villach is responsible for power electronics, Graz handles contactless, security and sensor technologies. Whether we are talking about the Near Field Communication (NFC) transmission standard, security chips or vehicle components for optical distance measurements – the global competence center for contactless technologies is a driving force in innovations in security and mobility.

Secure and convenient payment methods

Both contact-based and contactless security chips are designed to meet a range of standards for data transmission, with the aim of further increasing data transmission rates and finding new form factors for contactless applications. These chips enable convenient contactless payment via innovative smart wearables, such as NFC-supported armbands, stickers from Erste Bank and Sparkasse, or the world's first NFC payment ring in line with the international EMV standard.

Laser eyes for the car

Development of MEMS-based (microelectromechanical systems) Lidar (Light detection and ranging) components for use in driver assistance systems recently began in Graz. Lidar uses laser beams to determine the distance from the vehicle to long-range objects. A perfect complement to the radar chips that are already in use in many driver assistance systems and autonomous vehicles. The goal is to make Lidar-MEMS a globally affordable option for every new car.

In addition, Infineon in Graz also develops specifically integrated switches for automotive applications along the vehicle drive chain. These include circuits for diesel and petrol engine control, precision current regulators for the precise control of automatic transmissions, or automotive generator control units.

Technology from Graz can be found in:

- > NFC ATM cards
- > Payment and credit cards
- > Security components for PCs and tablets
- > Health cards
- > 3D image sensor chips for Augmented Reality
- > Tire pressure sensors
- > Control of automatic transmissions



since 1998

Global competence center
for contactless technologies

Did you know that there is an Infineon security chip in around half of the passports and ID documents across the world? And that Infineon in Graz has developed the world's fastest passport?



High-frequency development

With the Danube Integrated Circuit Engineering (DICE) holding company, Infineon Austria operates a development center for high-frequency parts in Linz. The focus is on 77 GHz radar chips for driver assistance systems – an area in which Infineon is the global market leader, with 50 million chips sold to date. These systems make driving cars safer and more comfortable thanks to active action taken by the system during driving, for example through pedestrian recognition, distance warning and automatic emergency braking. Assistance systems are one of the fastest-growing application areas in the automotive industry, and are also one of the essential requirements for fully autonomous driving.

Technology from Linz can be found in:

- > Radar chips for driver assistance systems
- > Distance warning systems
- > Automatic emergency braking
- > Autonomous vehicles
- > Aerial switches
- > Receiving amplifiers



Innovation through cooperation

The development center, with over 120 employees, was created in 1999 as a spin-off from the Johannes Kepler University Linz. In 2009, the development team presented the world's first 77 GHz radar chip to use silicon-germanium technology. At present, the Linz team is working on the latest generation of radar-sensor chips. These are installed in a highly integrated radar-chip set, along with a micro-controller and a safety power unit. This modern radar-system solution is specially configured for autonomous driving.

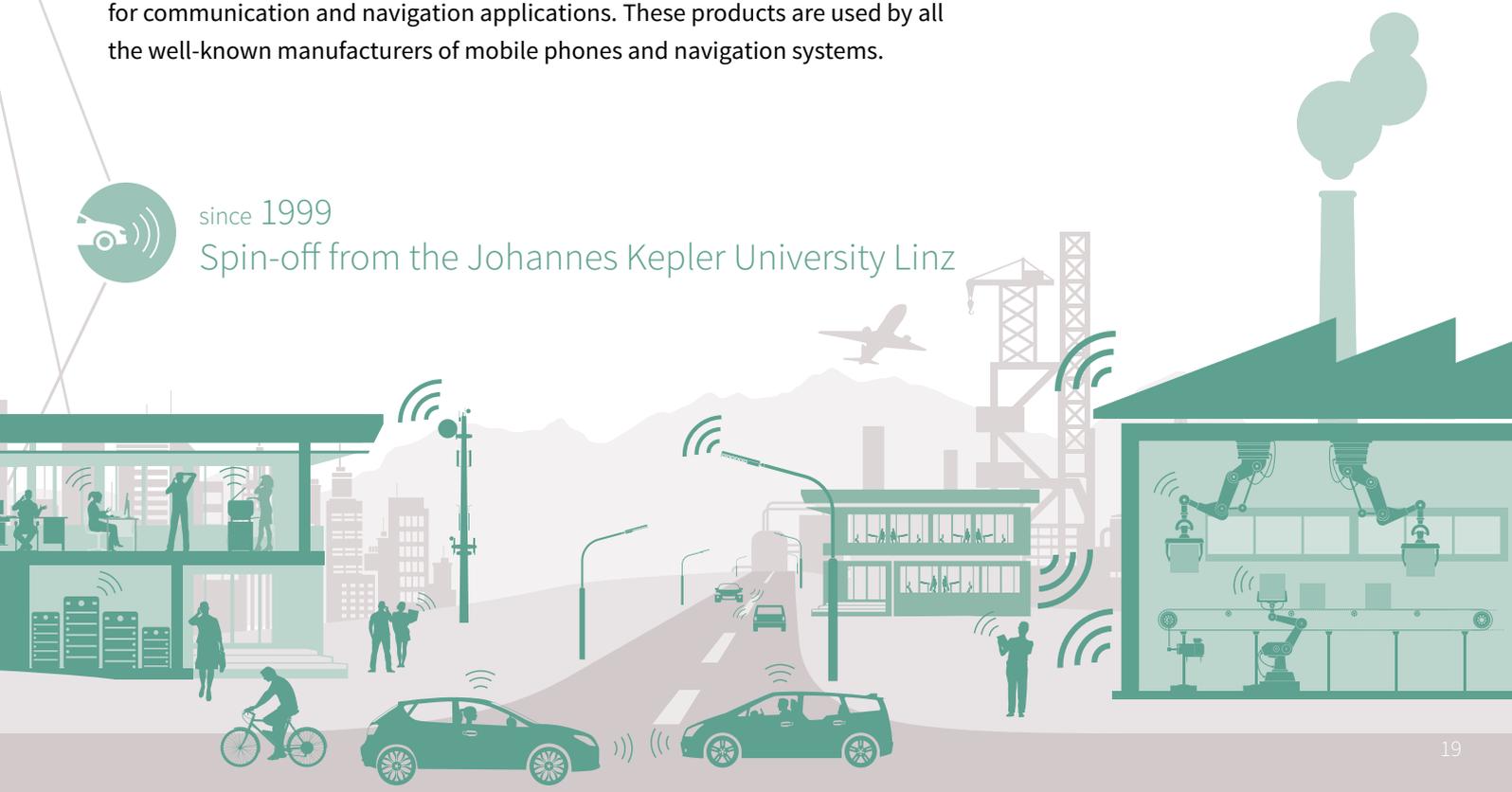
The other key areas of activity include aerial switches and receiving amplifiers for communication and navigation applications. These products are used by all the well-known manufacturers of mobile phones and navigation systems.

Did you know that the new Audi A8, the world's first series production car featuring level 3 automated driving, is fitted with radar technology developed in Linz? Infineon is the world market leader in radar chips for distance warning systems.



since 1999

Spin-off from the Johannes Kepler University Linz





Good alone, better together

Partnerships and research networks are an essential success factor in strengthening a knowledge-based industrial location in the face of global competition. Therefore, Infineon Austria cooperates with leading research establishments and is involved in many strategically relevant collaborations on a national and international level.

The company has had a leading involvement for years in EU research initiatives for the further strengthening of Europe's leading role in the development and manufacture of innovative microelectronics. These include projects such as PowerBase (Enhanced Substrates and GaN Pilot Lines Enabling Compact Power Applications), IoSense (Internet of Sensors) and Productive4.0.

Pioneer in Industry 4.0

The Semi40 (Power Semiconductor and Electronics Manufacturing 4.0) project launched in 2016 aims to take the next step in Industry 4.0 applications and contribute to the further development of autonomous factories.

Headed by Infineon Austria, it involves 37 partners from five countries and a project volume of €62 million. Through its role as a pioneer in Industry 4.0, Infineon Austria is contributing substantial expertise to the project.

National clusters pool their competencies

Networking and creating shared competencies in microelectronic and nanoelectronic systems – this is what Infineon is pursuing with collaboration in Austria. These include partnerships with local research facilities such as the AIT – Austrian Institute of Technology, Joanneum Research and CTR – Carinthian Tech Research.

Infineon is also involved in the industrial and innovation policy and investment program Silicon Austria, in the Silicon Alps cluster in Carinthia and Styria, as well as in nationwide platforms such as ECSEL (Electronic Components and Systems for European Leadership Austria), the Industrie 4.0 Österreich organization and in the Austrian Mobile Power e-mobility alliance.

Involvement in Silicon Austria

The program's goal is to develop Austria into a leading high-tech location for electronics-based systems



around 120
research collaborations



Partnerships with “teaching value”

Infineon Austria maintains partnerships with educational institutions to create the best framework conditions for the education and further training of young talents in the natural sciences and technical disciplines in Austria.

Knowledge and technology transfer

The Infineon-endowed professorship for power electronics is currently being launched at the Faculty for Technical Sciences at Innsbruck University. A total sum of €1.5 million will be invested over the course of five years. Students receive various forms of assistance, including with practical work placements, Masters or PhD theses, or in the form of presentations by experts. In addition to this, Infineon is also actively involved in five more endowed professorships at the Technical Universities in Vienna and Graz, and at the Alpen-Adria University in Klagenfurt. Infineon has established a joint research laboratory at the Management Center Innsbruck, the Emerging Applications Lab.

Doctoral theses: success through excellence

Doctoral theses are another important contribution when it comes to the cooperation between universities, research facilities and industry. Infineon Austria provides students with a clearly defined and diverse roadmap for their doctoral theses. The PhD Initiative is a vibrant community and profits from a range of activities offered by Infineon to network and share ideas.

Innovative events for larger groups, such as the BarCamp, and an online network, the StudentApp, help students find the right person to address their questions to. The students also develop their own formats for sharing knowledge, such as TechTalk, the Analytics Colloquium and LaTeX training, actively passing on their expertise to an interested public. Infineon funded and supported about 80 doctoral theses within the scope of the PhD Initiative in 2017.



Infineon Austria supports 6 endowed professorships:

University of Innsbruck: Power Electronics

Technical University Graz: Data Science

Technical University Graz: Autonomous Driving

Technical University Vienna: Human-Centered Cyber-Physical Production and Assembly Systems

University of Klagenfurt: Industry 4.0 – adaptive and connected production systems

University of Klagenfurt: Sustainable Energy Management



Our success is down to our people

Excellent employees are the foundation of Infineon Austria. They contribute significantly to the company's success with their motivation, flexibility and technical expertise, and shape the culture in the locations throughout Austria.

Actively shaping conditions

This makes it all the more essential for Infineon to offer an attractive working environment. The company therefore actively shapes the internal and external framework conditions with different initiatives and measures. These include flexible working time models, teleworking options, bilingual childcare facilities and a comprehensive health promotion program. By doing this, Infineon is laying the foundation for its employees to reconcile their careers with their families and create a healthy work-life balance.

Systematic support

Infineon develops and implements many initiatives to develop a management culture in line with the times, promote education and further training, inspire young talents to take an interest in technology, and systematically release the potential of diversity for the achievement of corporate success.

The company's educational initiatives are aimed at all ages – from childcare to universities, Infineon actively arouses interest in science, technology, engineering, and mathematics (STEM).



Welcome2Villach

As part of the regional cooperation between industry and tourism, Infineon has co-founded the platform [Welcome2Villach.at](https://www.welcome2villach.at). The goal is to increase awareness of Villach's attractiveness as a business location with a high quality of life, especially for international specialists.

Taking the right steps

Leadership Excellence is another cornerstone of Infineon Austria's global success. Comprehensive management skills are needed in order to achieve the demanding strategic and operational goals.

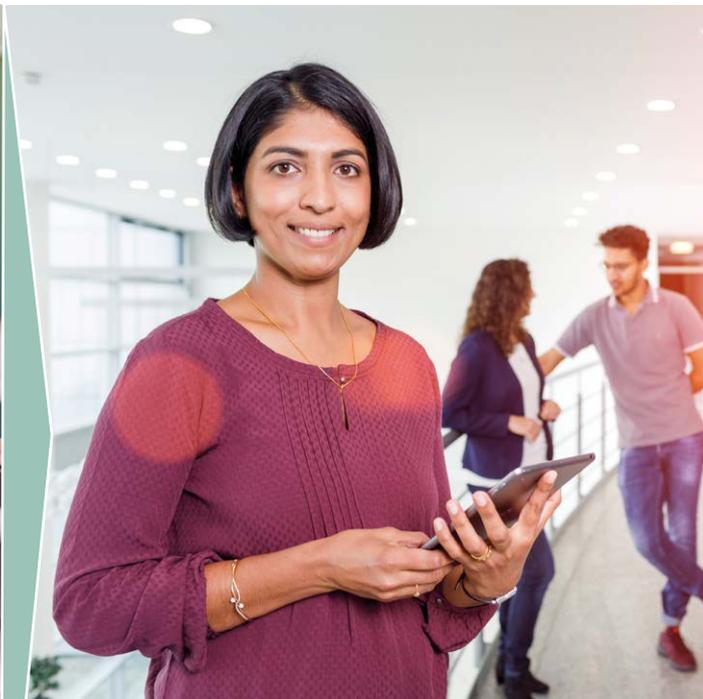
Dialogs and feedback

Regular dialog between managers and their employees is at the heart of the Leadership Excellence program. STEPS (Steps to Employees' Personal Success), an instrument for staff development, supports such dialog and mutual feedback as an essential element of management culture.

Continuous development

The most important basis for promoting the development of management skills is the global Infineon Leadership Excellence program. In a systematically structured format across all levels of the organization, this prepares new managers for their management responsibilities and also assists experienced managers in fulfilling their duties.

In addition, a local program for the next generation of managers supports staff who have only recently taken on management responsibilities or show potential for further duties. They are able to develop their management skills in the part-time program at the M/O/T School of Management, Organizational Development and Technology at the Alpen-Adria University of Klagenfurt. The content they have learned during the course is then applied in a strategically relevant practical project.



Embodying diversity together

Infineon Austria strives to recruit people with outstanding qualifications for the company and retain them in the long term – regardless of their age, gender, origin or skin color. The figures prove our success: 24 percent of our employees are from abroad, and around 60 countries are represented in the company. The reasons for this diversity are attractive framework conditions on the one hand, and projects with a global format on the other.

Gender diversity

Infineon's diversity management is based on three pillars: a strong commitment to women in technology and management positions, internationality and generation management. With this strategy, Infineon promotes a culture that consciously capitalizes on the benefits of diversity and in which employees can achieve their full potential.

Infineon Austria employs measures such as the Women's Day in Graz and Villach and other activities to provide interested young women studying technical subjects with an insight into the outstanding professional opportunities available in the high-tech sector.

Actively promoting integration

To help foreign workers feel at home outside of work too, there is close cooperation with the Carinthian International Club (CIC). This networking platform was founded by Infineon and, with its currently 35 member companies and approximately 1,200 individual members from 64 countries, makes a significant contribution to the integration of foreign employees and their families. Infineon also supports a similar initiative, the Club International (CINT), in Graz.

Every year, as part of a cross-company integration initiative by Carinthian companies, Infineon creates additional apprenticeships for people granted asylum.

Generation management

A particular focus is on cross-generation learning. Learning partnerships have been established especially to promote the active exchange of knowledge between younger and more experienced employees, to the benefit of everyone within the company. The specific goal is to maintain health, productivity and an innovative spirit across all age groups in the long term.







Combining career and family

Offering employees a working environment that promotes innovation and creativity is particularly important at Infineon Austria. The prerequisites for this are a culture of trust, openness and flexibility on the one hand, and a good balance between career and private life on the other.

Individual needs

For this reason, Infineon has created numerous facilities and options, such as multilingual daycare centers in Villach in collaboration with the childcare organisation Sonnenstrahl. With only a few days when they are closed and flexible and longer opening hours, these facilities address the needs of shift workers in particular.

The largest daycare facility is the International Day Care Center close to the Infineon site in Villach. There are now

a total of 170 daycare places available for children aged from twelve months to six years, who currently come from 16 countries.

The same aim is pursued by the International School Carinthia (ISC) in Velden, a private all-day school which uses English as its main language and German as the second language. 214 children there are taught according to both the Austrian curriculum and the learning goals of the International Baccalaureate.

An audit to support the path

Just how much value Infineon Austria attaches to the reconcilability of career and family is highlighted by the “berufundfamilie” audit. This state-awarded quality seal and the regular reviews associated with it support the path that Infineon is taking.

Inspiring a passion for technology

Infineon Austria wants to inspire a passion for technology for young and old alike, and uses a variety of initiatives to raise awareness for the natural sciences and associated phenomena. Since 2014 it has succeeded in reaching around 25,000 children, teenagers and students throughout Austria in this way.

Experiencing technology

Thus, at the International Day Care Center, children perform scientific experiments in miniLABs under the instruction of Infineon experts. There is also an annual Girls' Day, where elementary-school aged girls can discover their talents and abilities in the technical field in a fun way. Children are also given an insight into the world of technology at the Summerkids vacation program organized by the Carinthian International Club.

For the last ten years, teenagers aged 13 and 14 have been introduced to the professional world of semiconductors within the framework of the SEMI High Tech University in cooperation with the Carinthian University of Applied Sciences.

Open for young minds

Together with the Carinthian Industrialists' Association, Infineon enables school classes to visit the company, learn about modern professions and acquire their first experience of technology.

This experience is also offered to students in the Infineon high-performance class at the Lastenstraße polytechnic college in Klagenfurt, which specializes in mechanical and electrical engineering. This college teaches gifted students with above-average motivation and potential. The first 20 graduates celebrated their Matura (Austrian Higher School Certificate) in 2017: over half of them graduated with distinction.

Infineon also supports the „virtual polytechnic class“ at the Mössingerstraße polytechnic college in Klagenfurt. This class uses the latest digital teaching concepts to create spaces of opportunity for students at different levels of education. These can be used to create interdisciplinary project groups as well as expanding the students' knowledge in specific areas of interest.



ON/OFF

As part of the interactive permanent exhibition on the electricity grid at the Technical Museum in Vienna, Infineon demonstrates the big impact of small chips.



Finding and promoting talents

The job applicant market, a shortage of skilled labor, Generation Y – changes to the underlying conditions demand new recruitment strategies. The Talent Attraction Team uses a number of measures to find the right talents and win them over for Infineon Austria. In 2017, Infineon Austria was nominated „Best Recruiter“ in the electrical/electronics manufacturing sector in the largest recruiting survey in the German-speaking world.

Insight and exchange

In the months of August and February, the Villach region becomes a hotspot for international technology students. During the one-week summer/winter school, Infineon opens its doors to provide students with exclusive insights into the coolest fields in microelectronics.

Training and development

Infineon attaches great significance to training and development in all areas as a decisive factor in being competitive. In this we work according to the 70-20-10 principle. 70 percent of learning takes place through practical professional experience, subject-specific tasks and problem-solving – in other words directly in the workplace. 20 percent takes place via access to networks, and above all through interaction with other people, and 10 percent of learning takes place within formal training.

The varied and high-quality internal and external training and development opportunities we offer range from specialist and methodological competencies to courses on interpersonal and management skills.

Talents for the future

Customized trainee programs offer attractive entry options for top graduates. Through job rotation, systematic network-building, training measures, regular feedback loops and the exchange of knowledge, young talents are prepared to take over complex end functions. High potential individuals from various areas of the company can also put their skills to the test in the customized development program “Juniorenkreis”. The 18-month program encourages their individual strengths, develops their interpersonal and methodological skills and expands their networks.

An apprenticeship with added value

The double apprenticeship as a mechatronics technician (automation technology) and electrical technician (plant and industrial engineering) is a vocational training course that also allows the student to acquire the Austrian high school leaving certificate (Matura). At the moment, about one third of the apprentices are female. To increase this proportion, Infineon aims to introduce female high-school students to the fascination of technology as a partner in the “Mädchen – Lehre(n) – Technik” project together with the Girls’ Center in Klagenfurt.





Foto: Industriellenvereinigung/Kurt Prinz



Global competence center
for silicon carbide (SiC) and
gallium nitride (GaN) in
the Infineon Group

22,200 m²
clean room area up to class 1

just over 1,000
individual work steps for each wafer

around 1,844 product types
processed simultaneously

Leading factory for innovative semiconductors

Power semiconductors for applications in automotive and industrial electronics are the main product in Villach. The site is the innovation factory of the front-end production network, with partner factories in Germany and Malaysia. This means that Villach is where the future is being created – for Infineon and for everyone.

Precision work for market success

In the fiscal year 2017, 14.3 billion chips were produced in Villach. The electronic components are processed on silicon discs called wafers. These parts are produced and tested in different technologies and complexities in just over 1,000 production steps and with four different wafer diameters. In total, the factory produces approximately 1,844 basic product types simultaneously in the best quality, around the clock and 365 days a year. Maximum reliability and precision are required here: accuracies up to well below 100 nanometers, i.e. approximately 700 times less than the diameter of a human hair, prove the Villach site's vast technological competence.

Knowledge-based production

Synergies in research, development and production at the site drive the development of new, pioneering products to production maturity. To strengthen global competitiveness, production technologies and manufacturing competencies are continuously developed, most of all by employing digital technologies. This modern environment makes Infineon Austria a pioneer when it comes to smart production.

THE factory

These achievements have also gained external recognition. In 2015 the Villach factory was named the most efficient production plant in Austria in the "Groups" category by Fraunhofer Austria Research and "Industriemagazin". Infineon also received the special prize in the category "Maintenance".



more than 1,600 items of equipment



14.3 bn.
chips produced (FY 2017)



800,000 wafer movements a day



Innovation factory Villach



Wafer diameters
100 mm (by the end of 2017)
150 mm
200 mm
300 mm

Continuous improvement

Customers expect the highest quality. This is also what drives Infineon Austria. Our approach is called Zero Defects, which means not delivering a single defective component to our customers. Infineon adheres to this by continuous improvement, minimizing deviations and consistently eliminating them.

On the test bench

Every single chip goes through comprehensive inspections throughout the production process, and is subsequently thoroughly tested. Continuous certification of our production in accordance with the ISO 9001:2008 quality management standard and the ISO TS 16 949:2009 automotive standard supports us in doing this. Smart automation in production and the introduction of Advanced Process Control regulation mechanisms ensure further quality improvements.

To adapt this quality even better to the customers' specifications, Villach closely cooperates with other Infineon sites in Europe and Asia. Many international customers were impressed by the high production quality and the processes at the site during visits and audits over recent years.

Purity as the highest requirement

Producers of semiconductor components particularly need high-quality resources and materials as well as ultrapure ambient conditions. Villach uses clean rooms up to class 1, which means that 28 liters of air contain no more than one dust particle over 0.5 micrometers in diameter. By comparison, a hospital operating theater contains 1,000 to 10,000 particles, clean mountain air approximately 100,000 particles and normal ambient air about one million particles.

Stringent testing

In the test lab (Reliability Product Testing Center) at the Villach site, the quality components for automotive and industrial facilities are tested for reliability under the most stringent conditions. The results achieved serve as the basis for production and delivery approval, and ensure market readiness.



Excellence from the idea through to the product

The recipe for our successful innovation in production is the combination of research, development and high-volume manufacturing in Villach. The optimized pooling of competencies and cross-departmental teams permit short processing times from the idea through to the finished product.

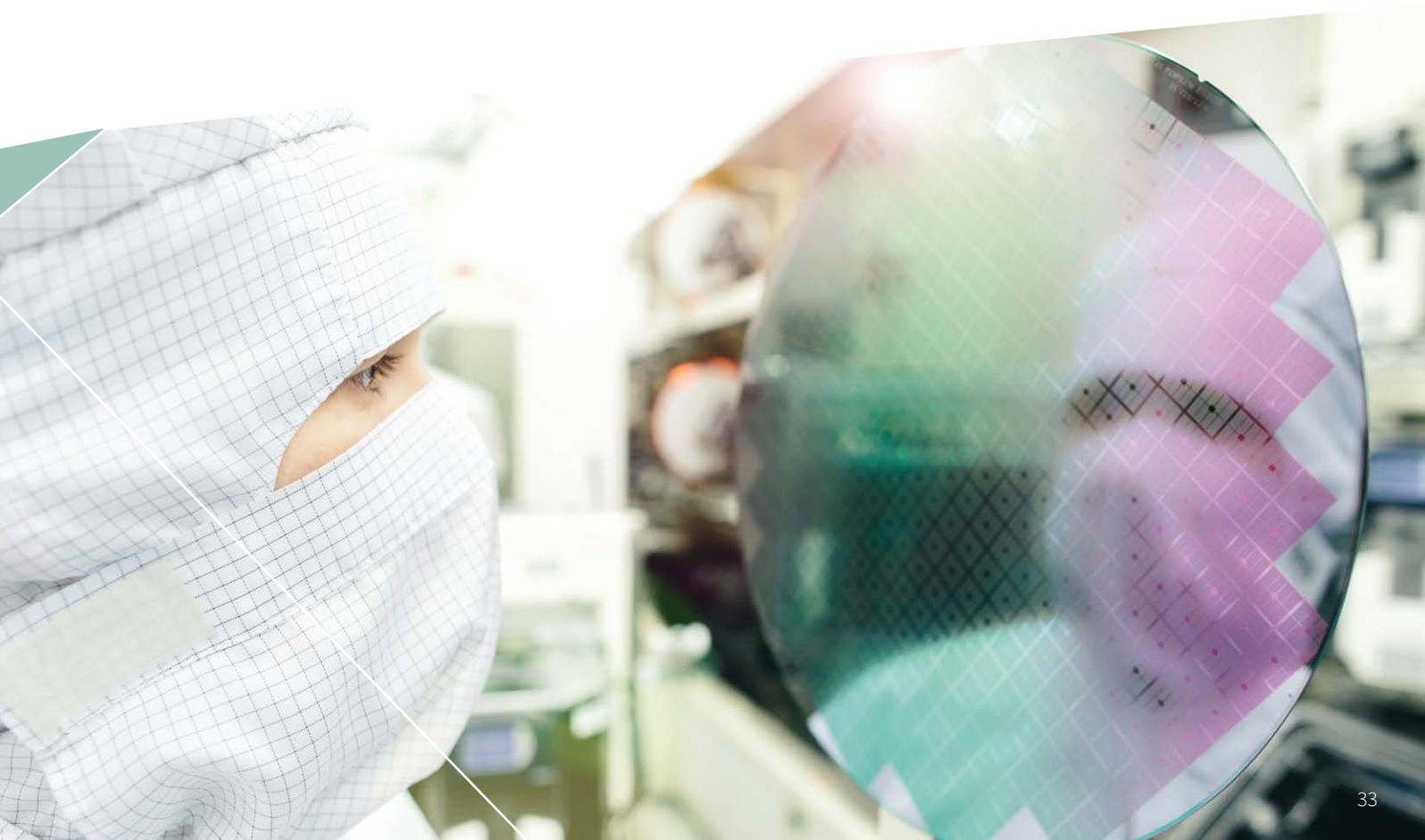
Villach's production innovations focus on several areas: single-process technology, equipment engineering, new materials, thin wafers and future-oriented automation, digitalization and production concepts.

Success story Power300

The best example of this is the world's first production of power semiconductors in 300-millimeter thin wafer

technology. These particularly thin energy-saving chips ensure even more efficient energy conversion in electronic systems. At the same time, mass production is made much more productive. A 300-millimeter wafer allows the production of around two and a half times as many chips in one production run as a 200-millimeter wafer.

After Infineon Austria had produced the first chips using this technology in late 2011, another milestone was reached in early 2013: the successful qualification of a completely continuous production line and customer approval for production. The volume production of this new generation of power semiconductors for automotive applications began in Villach in mid-2015. At 60 micrometers (0.06 millimeters), these new chips are among the thinnest of their kind in the world, and make a major contribution to reducing vehicles' CO₂ emissions.



The driving force for technology leadership

The trend towards ever smaller and lighter end devices also poses a great challenge for the production of power semiconductors. Our answer to this is thin wafer technology and innovative basic materials.

The thinner the better

Infineon Austria has expertise that is unique in the world: it produces up to 40-micrometer (0.04 millimeters) thin silicon wafers in high volumes. For comparison: a normal sheet of paper is around 110 micrometers (0.11 millimeters) thick.

New materials for new markets

The use of new semiconductor materials such as silicon carbide (SiC) and gallium nitride (GaN) enables particularly high-performance and fast-switching systems solutions to be produced with maximum reliability and low electricity consumption. Products from these technologies are used in markets that are key for the future, such as solar energy

and wind power, charging stations for electric cars, and mobile infrastructure for 5G networks.

Therefore, in the summer of 2017, the company announced that they would expand their development and production activities for silicon carbide in Villach. This involves advancing semiconductor process technologies, creating state-of-the-art production facilities and expanding the existing production infrastructure. This means that the Villach innovation factory is the global competence center for silicon carbide and gallium nitride within the Infineon Group.

MEMS Expertise

MEMS – microelectromechanical systems – are also produced in Villach. These microsystems are used every day in many areas, e.g. as tire pressure sensors. The further development of MEMS components will result in an expansion of the local product technology and production skills.



The factory of the future

The semiconductor industry inhabits a dynamic environment. Only those companies that succeed in mastering the increasingly complex topics and take active steps towards increased innovation in development and production will remain globally competitive market leaders in the future too.

Industry 4.0, which comprises networked and knowledge-intensive production, offers the opportunity of accelerating innovation and improving productivity and quality. Infineon Austria is implementing this as a pioneer in Austria.

Faster learning

Special facilities for manufacturing semiconductors – ion implantation machines – have been consolidated within a defined area of the Industry 4.0 pilot area in Villach. Here, various systems, such as energy consumption, intelligent product steering and mobile maintenance, are optimized incrementally and then rolled out for the remaining production. The use of sensor technology in combination with communication and data processing systems makes it possible for decisions to increasingly be taken autonomously during production.

“We want to use the solutions developed in Villach throughout the entire Infineon network and in our links with customers and suppliers.”

Dr. Reinhard Ploss, CEO of Infineon Technologies AG

Data for greater competitiveness

In future, the greater interlacing of development and production will enable new products or processes to be shown in dynamic simulations. The aim is to capitalize on the added value of the multitude of data generated within the company on a daily basis. These findings will be used to accelerate development processes and improve prediction accuracy and the quality of decision-making, which will in turn improve productivity. Suppliers and other sites will be increasingly integrated into the overall process.

Examples of the jobs of the future

Infineon Austria is carefully analyzing the changes that the digital revolution is bringing to production jobs. The training programs for apprentices and forepersons (“Lehre 4.0”) have been redesigned and targeted qualification measures have been introduced for existing staff. New job profiles have been created: data scientists analyze large data volumes and utilize the resulting information. Control center technicians monitor production with mobile control stands and steer the systems. Robot coordinators perform maintenance and repair work in the production areas.





The driver for a future worth living in

“Simpler, safer and greener”: this is the driving aspiration behind Infineon Austria’s development and production of innovative products. This is also clearly evident both within the corporate culture itself and in all our dealings with stakeholders. In Austria, Infineon stands for being an attractive employer, one that takes on responsibility towards society and the environment, and promotes environmental consciousness within the region.

One of the latest examples of this is the EU project STEVE (Smart-Tailored L-category Electric Vehicle Demonstration in Heterogeneous Urban Use-cases), which is coordinated by Infineon Austria. This project involves 21 partners from seven different countries researching new electro-mobility solutions for environmentally friendly transport in medium-sized cities. Villach (Austria), Turin and Venaria (Italy), and Calvià (Spain) were appointed as test regions for light electric vehicles and electro-bikes. The residents of these cities are involved in the project as users. The results will be incorporated into European Commission directives for urban mobility concepts.

Voluntary commitment since 1997

- › EMAS (Eco Management and Audit Scheme of the European Union)
- › EMAS Award: 2009 and 2013
- › The first company validated pursuant to the EMAS-III regulation in Austria
- › Committed to the 10 principles of the UN Global Compact
- › Among the most sustainable companies in the DowJones Sustainability Index since 2010

Infineon Integrated Management Program for Environment, Energy, Safety and Health (IMPRES)

Matrix certification in accordance with the standards:

- › ISO 14001 (environmental management)
- › OHSAS 18001 (safety management)
- › ISO 50001 (energy management)

Health²

Health promotion multiplied by prevention equals healthy employees and the repeated awarding of the quality seal of approval for workplace health promotion. Prevention, exercise, nutrition and mental health are promoted with the support of the Medical Service Center at the Villach site, and with two doctors and a nurse on hand. Support also comes from the Health Team, a work group made up of different departments, which focuses on the subject of health at the site. A range of fitness and health offers, an annual health day, an internal mediator team and training courses in the areas of stress management and burnout prevention contribute to general well-being. This is supplemented by the option of external psychological counseling – anonymously and free of charge.

In the Infineon Group, less is more



–47%
less electricity



–28%
less water



–53%
less waste

consumed per cm² manufactured wafer than the global average

A holistic approach to sustainability

Infineon Austria implements pioneering digitalization and automation methods in real-time operations at the innovation factory in Villach. In terms of a holistic approach, this also includes energy management for on-site buildings, production facilities and supply areas. The building infrastructure and systems are equipped with sensors, automatic control devices and smart meters for the intelligent control and regulation of the facilities. This allows energy consumption to be adjusted even more precisely to the respective production capacity. The data collected in this way is used for computer models and simulations to determine further savings potential. For example, an additional energy-saving potential of up to 20 percent was recorded as being achieved through the intelligent control of cooling units.

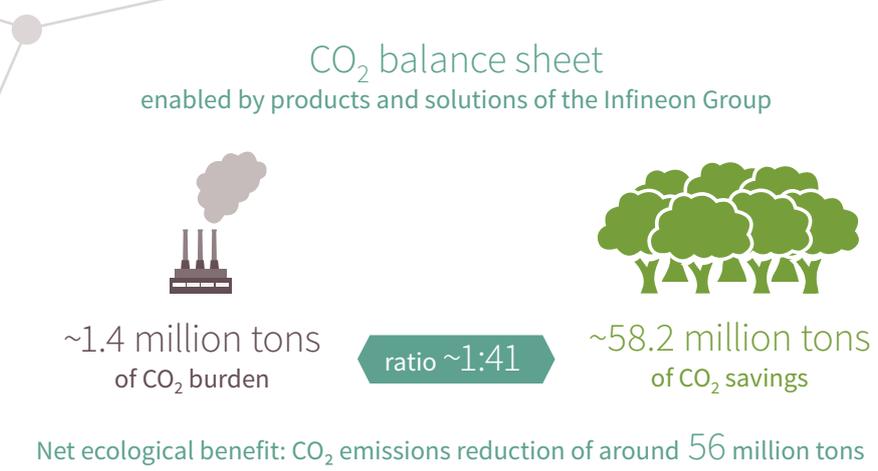
recovery, which conserves energy. Infineon uses electricity produced 100 percent by hydroelectric power and other ecologically friendly energy sources. The e-charging stations set up on the company premises also have model character. The acquisition of electric vehicles for business travel supports a form of mobility that is environmentally sound and conserves resources.

A diverse range of measures – from heat recovery and optimizing the energy consumption of process cooling water to converting to LED lighting – contribute to increasing energy efficiency. This resulted in a total savings of 9.3 GWh of energy (8.1 GWh heat and 1.2 GWh electricity) and about 55,000 tons of CO₂ emissions during the 2017 fiscal year.

Long-term commitment pays off

When designing new procedures, technologies and innovations, Infineon Austria attaches great importance to environmental compatibility and sustainability. The company switched the heat supply in Villach from natural gas to district heating several years ago. At present, two thirds of the site's heating needs are covered by heat

The Sustainability 4.0 project promotes the continuous improvement of energy efficiency. Within the scope of sharing best practice, a continuous exchange of experiences also takes place with other Infineon sites as well as with other company sites. Detailed information on environmental, safety and energy management at Infineon Austria can be found in the annual environmental statement on our website: www.infineon.com/austria



Outstanding achievements

2008-2017

Innovation	
Fraunhofer Survey: Top 5 out of 272 European companies in technology management	2017
2 Sesames Awards for first post-quantum cryptography on contactless security chip	2017
Austrian State Prize for Innovation	2013
Innovation and Research Award of the Province of Carinthia	2012, 2009
DICE – Innovation Award of the Province of Upper Austria, 3rd place in 2008	2010, 2008

Quality and delivery reliability	
Goertek “Best Partner Award” for MEMS microphones	2017
Samsung Electronics “Quality Award” for low noise amplifiers	2017
Most efficient production operation in Austria, Special prize for maintenance	2015
EFQM Excellence Award, Finalist	2014
Austrian State Prize for Company Quality	2012
Jury Prize for Innovation and Nomination for the State Prize for Company Quality	2011
European Supply Chain Excellence Award	2008
Recognized for Excellence 4* qualityaustria	2008

Equal opportunities and support for young talents	
Career’s Best Recruiter	2017, 2016, 2013
Basic-level certificate – berufundfamilie audit	2016, 2013
Business Award for Integration	2010
KNEWLEDGE State Prize	2010
Trigos Kärnten Award	2010, 2008
State Prize for Equal Opportunities in R&D	2009
Special prize ebiz egovernment award	2009, 2008
ebiz egovernment award Carinthia	2008
Anton Benya Sponsorship Prize	2008

Environmental protection, health, and sustainability	
Smoke-free Company, Carinthia	2016
EMAS Prize	2013, 2009
Trigos Kärnten Award	2012
Quality Seal for Workplace Health Promotion	2016, 2012, 2009
Fonds Gesundes Österreich “Workplace Health Promotion”, 2nd place	2008

Other awards	
HERMES.Business.Prize, category “International Companies”	2017
EVA B2B Event-Award, employee events, 3rd place for “Infineon Family Day”	2017
Sabine Herlitschka, Manager of the Year, Carinthia	2016
Global Player Award of the Austrian Economic Chamber, Foreign Trade Austria	2015



Infineon Technologies Austria AG
9500 Villach, Austria

All Rights Reserved.

Order Number: B179-I0075-V4-7600-EU-EC
Final Version: 01/2018

www.infineon.com/austria

