www.infineon.com/austria

For a green and digital future

Infineon Technologies Austria
Fiscal year 2023



Contents

The company 3

About Infineon Austria 3
Infineon Austria's history 4
Infineon at a glance 6
The fiscal year 9
Our strategy 10
Global business activities 12

Research, development & innovation 14

Market success through innovation 16
Connect. Create. Challenge. 18
R&D location Villach 20
R&D location Graz 22
R&D location Linz 24
R&D location Innsbruck 26
KAI Competence Center 27
Research collaboration 28
Educational collaboration 31

People as a Success Factor 32

People create value 34
Taking the right steps 36
Embodying diversity together 38
Combining career and family 40
Inspiring a passion for technology 42
Promoting talents 44

Innovation Factory 46

The future is being created in Villach 48
The driving force for technology leadership 51
Continuous improvement 52
Networked manufacturing 54

Social Responsibility 57

For the environment and society 58
A holistic approach to sustainability 60

We would like to thank all our employees who contributed to this annual brochure.

The cover picture shows four Infineon Austria employees who drove the business forward during the fiscal year with their key areas of work and topics.

The photo was taken in the Remote Operation Control Center at the Villach site.

Front:
Silke Auchter, quantum chip developer at the Villach site
Ronald Stärz, Site Manager of the Infineon Systems Competence Center Innsbruck
Back:
Vanessa Allmayer, double apprenticeship for metal technology and electrical engineering with Matura at the Villach site
Thomas Steiner, Head of Facility Management and Managing Director under trade law at the Villach site





THE COMPANY

Driving decarbonization and digitalization. Together.

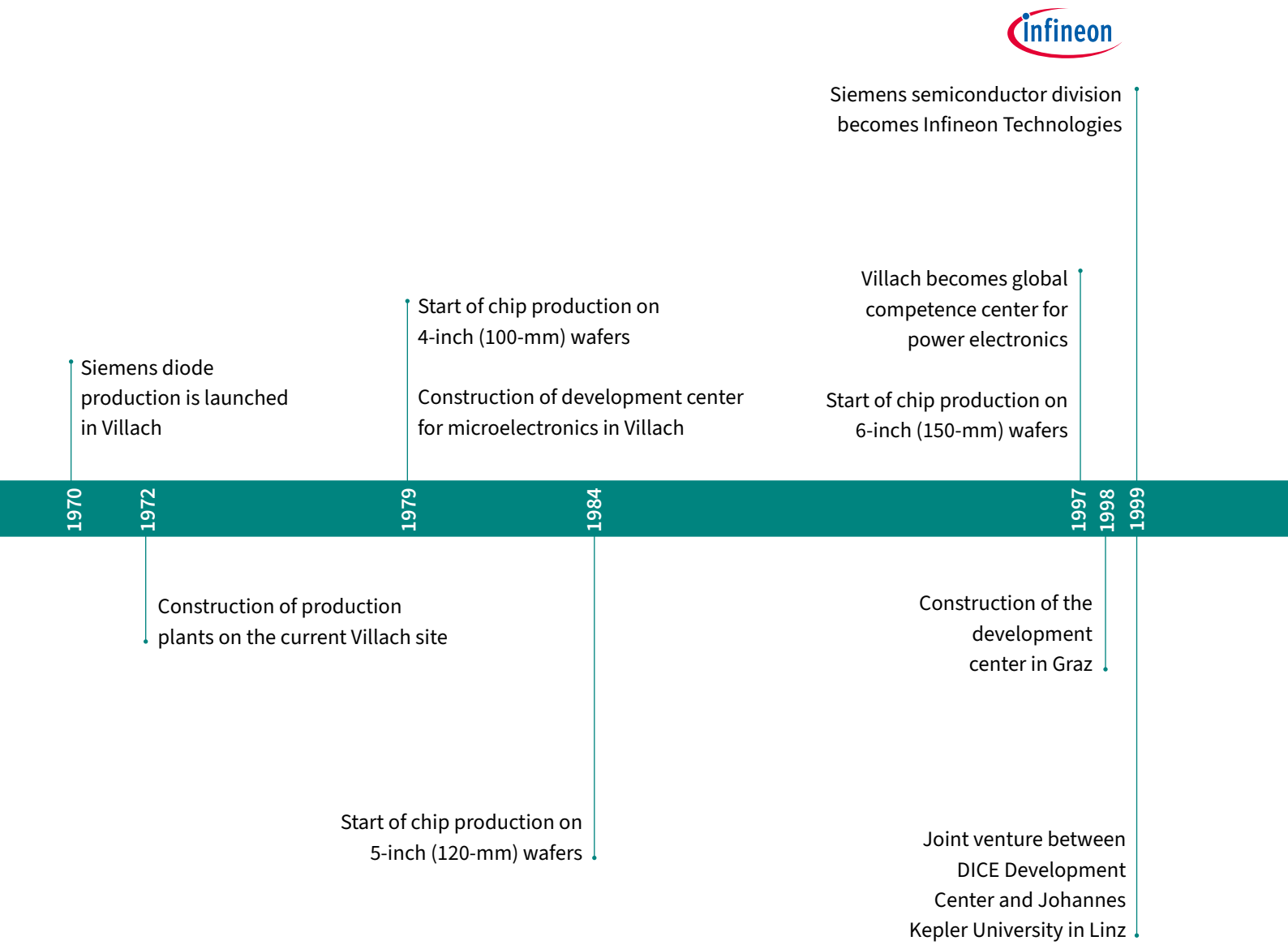
Infineon Technologies Austria AG is a subsidiary of Infineon Technologies AG – a world leader in semiconductor solutions for power systems and the Internet of Things. With its products and solutions, Infineon drives decarbonization and digitalization.

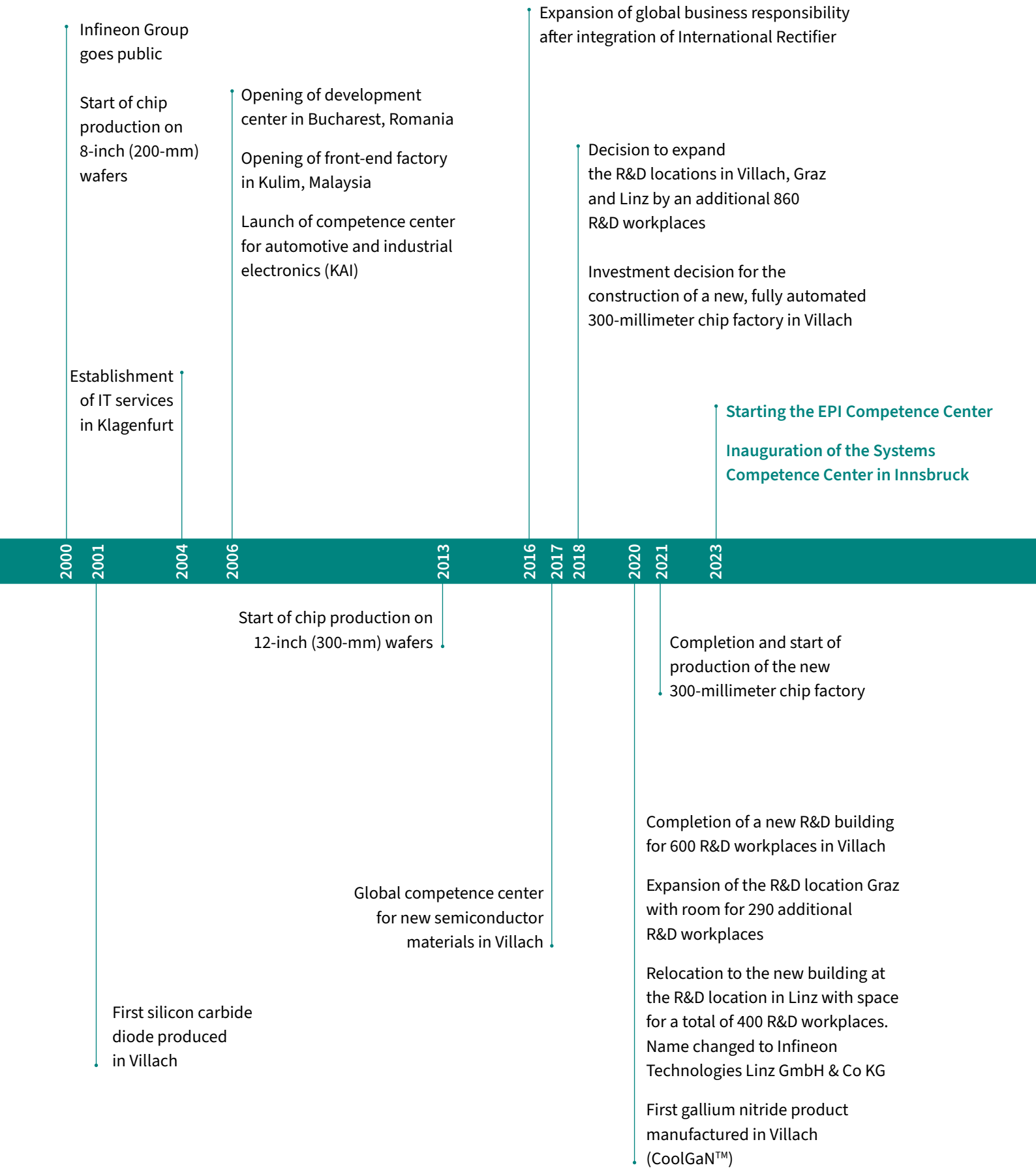
Infineon Austria pools competencies for research and development, production and global business responsibility. As one of the country's most research-focused companies, Infineon makes a significant contribution to making life easier, safer and greener.

For a better future

Semiconductors are essential to meeting the energy challenges of our time and helping to shape the digital transformation. Though barely visible, they have long become an indispensable part of our everyday lives. As one of the world's leading semiconductor companies, we enable pioneering solutions for green and efficient energy, clean and safe mobility, and a smart and secure Internet of Things.

From an extended workbench to a global player on the semiconductor market




2000
Infineon Group goes public
Start of chip production on 8-inch (200-mm) wafers
2001
First silicon carbide diode produced in Villach
2004
Establishment of IT services in Klagenfurt
2006
Opening of development center in Bucharest, Romania
Opening of front-end factory in Kulim, Malaysia
Launch of competence center for automotive and industrial electronics (KAI)
2013
Start of chip production on 12-inch (300-mm) wafers
2016
Expansion of global business responsibility after integration of International Rectifier
2017
Global competence center for new semiconductor materials in Villach
2018
Decision to expand the R&D locations in Villach, Graz and Linz by an additional 860 R&D workplaces
Investment decision for the construction of a new, fully automated 300-millimeter chip factory in Villach
2020
Completion of a new R&D building for 600 R&D workplaces in Villach
Expansion of the R&D location Graz with room for 290 additional R&D workplaces
Relocation to the new building at the R&D location in Linz with space for a total of 400 R&D workplaces. Name changed to Infineon Technologies Linz GmbH & Co KG
First gallium nitride product manufactured in Villach (CoolGaN™)
2021
Completion and start of production of the new 300-millimeter chip factory
2023
Starting the EPI Competence Center
Inauguration of the Systems Competence Center in Innsbruck

THE COMPANY

Infineon at a glance

One of Austria's most research-focused companies

Local competencies and global research activities in the areas of automotive, energy management, energy-efficient technologies and the Internet of Things.

Leading factory for innovative semiconductors

Production at the Villach site is the innovation factory in the global Infineon network.

Local expertise, global responsibility

Global business responsibility for 12 product lines from three Group divisions. Infineon Austria's know-how can be found in many everyday applications.

Guideline for sustainable growth

Infineon Austria incorporates the SDGs into its corporate strategy.

SUSTAINABLE DEVELOPMENT GOALS

EFQM
Recognised for Excellence
5 Star - 2019



Fiscal year 2023

Infineon Technologies AG	Sales	€16.309 billion	+27.0%
	Employees throughout the group	58,600	
Infineon Technologies Austria Group	Sales	€5.604 billion	+7%[1]
	Earnings before tax	€835 million	+26%[1]
	Total investments	€628 million	+10%[1]
	Total employees	5,886	+8%[1]
	Proportion of women overall	22.2%	
	Employees in R&D	2,501	
	Employees in product and process development and quality assurance	610	
	Additional permanent external employees via third companies	2,244	
	Degree candidates and doctoral students[2]	212	
	Apprentices	96	
	Interns and vacation/industrial placements[2]	1,163	
Research & Development	R&D Expenditure	€672 million	+15%[1]
	R&D Expenditure as a percentage of sales	12%	
	Initial patent applications	222	
Production	Products (basic types)	approx. 2,000	
	Production volume	9.2 billion chips	
	Audits & customer visits	111	

[1] Compared to the fiscal year 2021/22.
[2] Aggregated values for the fiscal year 2022/23, as of September 30, 2023, including domestic shareholdings.



€5.604 billion

Sales



€835 million

Earnings before tax



€672 million

R&D Expenditure



The Board of Infineon Technologies Austria AG:

Dipl.-Ing.in Dr.in Sabine Herlitschka, MBA, CEO
Area of responsibility: Research & Development, Human Resources, Communications

Mag. Jörg Eisenschmied (right), CFO since November 1, 2023
Area of responsibility: Finance, Purchasing and financial business responsibility for the "Green Energy Control" area of the Green Industrial Power (GIP) division

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

Dipl.-Ing. (FH) Oliver Heinrich (not in picture), CFO until October 31, 2023, transferred to the Group headquarters in Munich on November 1, 2023, where he took over as Head of Finance of the Infineon Frontend Cluster

The fiscal year 2023

The Infineon Technologies Austria Group (Infineon Austria) achieved a very good result in fiscal year 2023 (accounting reference date: September 30, 2023).

The Austrian subsidiary of the German semiconductor group achieved sales of € 5.604 billion, marking an increase by seven percent against the previous year's figure.
The earnings before taxes amounted to approximately €835 million, an increase of approximately €176 million or 26 percent over the previous year.

Thanks to solutions for decarbonization and digitalization, Infineon Austria had an extremely positive fiscal year, even though the challenging framework conditions were already noticeable in the last months of the fiscal year. However, with its strong focus on power electronics ("energy-saving chips") in growth areas that drive the green and digital transformation, Infineon is well positioned in Austria for the long term.

In the fiscal year 2023, investments were increased by ten percent and amounted to a total of €628 million. The majority of these investments were made in the development and production of technologies that make applications more energy efficient and therefore environmentally friendly. Investments were made in property, plant and equipment for the production of 300-millimeter power semiconductors and in production capacity for the new semiconductor materials silicon carbide (SiC) and gallium nitride (GaN). These are increasingly being used in energy-efficient applications such as solar systems, electric cars, charging stations and data centers.

Additional SiC and GaN development and production facilities were completed at the Villach site in the fiscal year 2023. In addition to volume production, the implementation of a development area directly in the production environment is particularly noteworthy: A competence center was established there that focuses on a key production step in the manufacture of SiC and GaN chips, known as epitaxy. This close integration of research and production enables Infineon to accelerate innovations, test new system concepts at an early stage and thus work even more effectively on new solutions.

The European research project "All2GaN" led by Infineon Austria also focuses on new semiconductor materials: Easy-to-integrate, energy-saving gallium-nitride chips are at the heart of this effort. These chips have the potential to improve energy efficiency in applications by 30 percent, saving an estimated 218 million tons of CO_2 worldwide.

In the fiscal year 2023, Infineon opened its sixth site in Austria, a Systems Competence Center in Innsbruck. Initial reference systems for electromobility, life sciences, renewable energies and robotics are being developed there in order to bring innovative applications to market maturity and to end customers even faster. The premises also serve as a networking platform with educational partners and students in Tyrol.

In September 2023, the ground-breaking ceremony was held for a new training and further education center in the Villach Technology Park, which is being built by GPS Personalservice Kärnten GmbH. Infineon will be the main tenant here, with a new, state-of-the-art campus for the training of apprentices. With the start of the apprenticeship year in September 2024, the annual number of apprentices will double to 40.

Jörg Eisenschmied took over from Oliver Heinrich as the new Chief Financial Officer of Infineon Austria on November 1, 2023. Born in Styria, he can look back on a long career at Infineon and will be responsible for all matters relating to finance, purchasing, IT and sustainability.

Infineon Austria Strategy 2030

Our Way of Profitable Growth



Our guideline for profitable growth

Being internationally competitive from our location in Austria and optimally contributing to the Group's success – these are the Infineon Austria's sustainable objectives. The Strategy 2030 "Our Way of Profitable Growth" is the guideline for this mission, which is consistently implemented at all levels of the company. The five coordinated target areas are based on the strengths of Infineon in Austria.

A pronounced high-performance culture

Innovation, creativity and continuously striving for improvement are a living part of our day-to-day activities at Infineon Austria. They are the result of a consistent strategic focus on customer value, clearly defined goals and performance indicators in all business processes, and respectful treatment of employees. In order to ensure this high level of quality, we undergo continuous qualification in accordance with the principles of the European Foundation for Quality Management (EFQM).

By 2030, Infineon Austria is...

... leading the way of profitable growth: we develop, utilize and implement global standardization, digitalization and qualification processes and tools to increase profitability and cost competitiveness.

... a leader in innovation and time to market: with an ambitious mindset we leverage on our broad internal and external range of competencies, borderless collaboration and fast learning.

... leading the "Green Way": we actively contribute to decarbonization by developing sustainable solutions, green manufacturing and pursuing our environmental and social responsibility.

... the global center of gravity for wide bandgap technologies and systems: we expand our market leadership in power systems by shaping the transformation towards WBG with know-how, innovations and production capabilities.

... a substantial contributor to Infineon Technologies' global funding and actively supporting group-wide Public Policy targets out of the Austrian context on a European level.

... a highly attractive tech company: we globally attract and develop ambitious people by providing a diverse and highly advanced work environment for all employees.

The measures of the strategic target areas are also defined and continuously expanded with regard to their impact on the United Nation Sustainable Development Goals (SDGs). With the implementation of the target area "Sustainability at all levels", Infineon Austria is focusing more strongly on promoting decarbonization. The following SDGs are currently considered in the Strategy 2030:



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 12 product lines from three divisions to its subsidiary in Austria.

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 & Sensor Systems Division handles responsibility for the product lines Power Management ICs, High Voltage Power Conversion, Enterprise Power, Ultra-Low Voltage Switches, Low Voltage Switches, Medium Voltage Switches, and Power Management Controller & Driver. Typical applications for these products are mains adapters for notebooks, smartphones and tablets. Furthermore, approximately 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 and battery-operated tools.

Energy efficiency meets mobility

Power semiconductors from the Chips & Discretes product lines, Intelligent Power Modules and Gate Drivers from the Infineon Green Industrial Power division are an important part of the electronic controls of drive mechanisms. These include, for example, inverters in wind turbines and photovoltaic units, refrigerators, pumps, fans and compressors, as well as motor controls in above-ground and underground trains. The product lines High Voltage Gate Driver and Discretes & Chips 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 global market success also confirms its Austrian business activities: For years, the Group has been the global market leader in power semiconductors. Infineon is a leader in the automotive sector as well as in the area of integrated safety circuits, and is excellently positioned in important growth markets such as the United States and Asia.

Global IT management in Klagenfurt drives digital transformation

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 centers for production and development at Infineon. Essential elements of the areas of production automation and enterprise applications are developed and supported here. More than 200,000 systems in the Infineon network are managed and protected from the Network Operation Center. The Cyber Defense Center was established in response to increased threats to data security.

Global business responsibility for 12 production lines within the Group

Infineon Technologies Austria is responsible for 12 product lines in three of the Group's four divisions:

Power & Sensor Systems
- Power Management ICs
- High Voltage Power Conversion
- Enterprise Power
- Ultra-Low Voltage Switches
- Low Voltage Switches
- Medium Voltage Switches
- Power Management Controller & Driver

Connected Secure Systems

Green Industrial Power
- Chips & Discretes
- Intelligent Power Modules
- Gate Driver

Automotive
- High Voltage Gate Driver
- High Voltage Discretes and Chips

Three product lines have been added since October 1, 2023:
- GaN High Voltage
- GaN Medium Voltage
- GaN Auto



222

Initial patent applications

2,501

Employees in R&D

€672 million

R&D Expenditure

12%

R&D expenditure as a percentage of sales



RESEARCH, DEVELOPMENT & INNOVATION

Shaping the future

Infineon Austria's 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, microcontrollers, new semiconductor materials and contactless security applications.





INNOVATION

Market success through innovation

New ideas and new solutions are an essential basis for success for Infineon Austria as well as for Austria as a technology site. For a number of years, Infineon has been pursuing a strategy that focuses on excellent innovation management.

The right culture for innovation

Innovation requires 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 Accelerator” is one element that characterizes this culture. In this internal competition, Infineon finances the implementation of the best project ideas for one year. These are projects that implement Infineon’s strategy, provide new solutions and applications to enter new markets, generate new skills, competencies and methods, and ultimately contribute to Infineon’s success.

The interdisciplinary and interactive exchange of experiences and ideas is the main focus of the Innovation Days. During this event, excellent achievements are awarded the Infineon Austria Innovation Award. More than 660 projects have been submitted so far. A prize for the best PhD theses is also awarded.
The results facilitate new inventions, and thus the development of new market potential.

Promoting inventiveness

Within the scope of our employee suggestion scheme, employees contribute innovative ideas for improvements. In the fiscal year 2022/23, the program entitled “Your Idea Pays” (YIP) realized 1,876 suggestions for improvements, amounting to a financial value of €19.9 million. A special highlight among the suggestions: One implemented idea resulted in savings of nearly eleven million euros. The innovative improvement in the implantation area, a manufacturing step in production, has significantly reduced process times and costs, while also reducing maintenance costs.

1.876

suggestions for improvements with an equivalent value of €19.9 million were realized in fiscal year 2022/23.





INNOVATION

Connect. Create. Challenge.

With the first Quantum Master Class for physics students and the annual Infineon School, the company promotes the exchange with students from all over the world. Through lectures by Infineon experts and prestigious instructors, the young scholars expand their knowledge in the field of microelectronics. A total of 81 students from 24 nations and 46 universities networked over three to five days in 2023.

The iHub at the Vienna University of Technology also offers networking opportunities. It is now well established and celebrated its fifth anniversary in October 2023. In order to further expand this successful concept, the “Mission Future Hub” was opened at the Technical University of Ljubljana in November 2023 as part of the EU funding program “Important Project of Common European Interest on Micro-electronics” (IPCEI ME). These innovation spaces serve as a network for science, business, and industry.

Here, Infineon doctoral and master’s students can discuss ideas on the digital and green transformation with researchers, experts and lecturers. They also provide a space for innovative interaction with the maker community and start-ups.

Global network for regional start-ups

Infineon develops a variety of exciting semiconductor products. Infineon is therefore on the lookout for partnerships with start-ups that are interested in the optimal use of Infineon products in their applications. In the fiscal year 2023, Infineon cooperated with ten start-ups. These up-and-coming companies can exchange ideas with technical experts and decision-makers, and receive samples and reference hardware as well as marketing support.

Success stories are proof of our commitment: Ecologix is working on intelligent sensor systems to prevent and detect damage to wind turbines. Tubolito implements tire pressure monitoring for bicycles with Infineon sensor technology.

The Infineon Group supports 25 up-and-coming companies throughout Europe.

Infineon Hub, the innovative networking and working space for science, business and industry in Vienna.



R&D LOCATION VILLACH

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 waste heat. The activities in Villach focus on the development of increasingly smaller and more energy-efficient chips to be used in automotive, manufacturing and consumer electronics.

Effective energy-saving chips

Infineon is the world market leader in power semiconductors. To maintain this success, the team in Villach is already working on the next generation of chips, made of new materials such as silicon carbide (SiC) and gallium nitride (GaN). These so-called wide bandgap technologies can convert power much more efficiently, making units smaller and lighter. This enables charging stations for electric cars with significantly shorter charging times or the mobile infrastructure for 5G networks.

Smart, safe and clean vehicles

The goal in the automotive research field is to design the next generation of vehicles. Power electronics, microcontroller solutions and sensor technologies designed in Villach enable innovative applications for the cars of the future. These include, for example, 3D magnetic sensors, which are able to measure movements in all directions. This makes them universally deployable for joystick-type applications, for example for multimedia systems in cars and consumer electronics.



Another key area is the development of “smart” switches for intelligent power distribution in vehicles. These make it possible to detect and isolate faults in the entire on-board system. This field of application takes on a whole new dimension due to the functional safety requirements of connected and autonomous vehicles. Products developed in accordance with the ISO 26262 series of standards are used for automotive safety applications. Infineon is therefore developing highly available and fail-safe components for the mobility of the future.

Analog, digital and more

Expertise from 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. One key aspect is the field of microcontrollers with worldwide responsibility for analog-mixed-signal know-how. In the field of power management, numerous power driver solutions have been developed for industrial applications and data centers. Sensors for computers and consumer electronics are other areas of focus.

In addition to a variety of other analog-mixed-signal solutions, we have also achieved system competence for 5G base stations and advanced the development of the high-speed mobile communications network of the future.

Learn more about Infineon’s fail-safe automotive components



Our site in Villach: global competence center for power electronics since 1997

Technology from Villach can be found in:

Automotive
- Comfort electronics
- Autonomous driving
- Electric power steering
- Electric and hybrid vehicles
- Charging infrastructure for electric vehicles

Power & Sensor Systems
- Wireless chargers
- LED lighting
- 5G mobile infrastructure
- Servers

Green Industrial Power
- Photovoltaic systems and wind parks
- Refrigerators and induction stoves

R&D LOCATION GRAZ

Contactless, secure, mobile

Whether we are talking about microcontrollers, the Near Field Communication (NFC) transmission standard, security chips for payment cards and sovereign documents or chips for battery management in electric vehicles – the global competence center for contactless technologies is a driving force in innovations in security, mobility, and the Internet of Things.

Energy-efficient solutions

In light of the rapid electrification and digitalization trends, demand for more efficient and safe microelectronics solutions is rising continuously. In order to meet this need, Infineon's development center Graz is expanding its range of responsibilities and is developing particularly fast, powerful and energy-efficient microcontrollers for use in many areas of everyday life. The focus is on the development, design and layout of innovative microcontrollers that are used, for example, in household appliances, power tools, charging stations and batteries for e-bikes, solar systems or industrial robots and automation systems. Above all, they enable secure data processing for the Internet of Things.

Secure data transmission

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.



Building on its expertise in contactless payment systems, Infineon is working on new chip solutions that make payment even more convenient, hygienic and secure. With biometric payment cards, the cardholder's fingerprint is used for authentication instead of a PIN. The finger is placed on the card, where it is identified by a sensor and then matched with the fingerprint stored on the card. The microcontroller developed by the Graz team ensures secure data transmission of the confirmation from the sensor to the security chip and back to the reader.

Intelligent vehicles

For the automotive market, the Graz researchers developed a module to optimize the charging and discharging of batteries in electric vehicles. The range and service life of the energy storage unit in zero-emission cars are of great importance when considering a purchase. With the right battery management, these characteristics are continuously improved, and in close cooperation with vehicle manufacturers, we were able to reach a completely new level.

Find out more about the research location Graz



Our site in Graz: global competence center for contactless technologies since 1998

Technology from Graz can be found in:

Connected Secure Systems

- NFC ATM cards
- Payment and credit cards
- Smart wearables
- Electronic passports
- Security components for PCs and tablets
- Health insurance cards (e-cards)
- Blockchain tokens
- Microcontrollers for industrial applications

Automotive

- Tire pressure sensors
- Control of automatic transmissions
- Battery management systems
- Power Management IC
- Radar IC
- Laser Beam Scanner IC

Power & Sensor Systems

- 3D image sensor chips for Augmented Reality and Virtual Reality
- Silicon Microphone IC

R&D LOCATION LINZ

High-frequency development

The development center in Linz is a pioneer in the field of radar technologies for driver assistance systems. Back in 2009, the Linz team launched the world's first 77 GHz radar chip using silicon-germanium technology. The current generation of 77 GHz radar chips is implemented in CMOS technology and enables the generation of high-resolution radar images by cascading multiple sensors. These radar sensors are used in driver assistance systems such as pedestrian recognition, distance warnings and automatic emergency braking, making driving safer and more comfortable.

Innovations for the mobility needs of tomorrow

Together with the Johannes Kepler University and Silicon Austria Labs, Infineon Linz is working on the further development of such radar sensors. Future vehicles will be equipped with high-resolution radar sensors capable of detecting and localizing road users with very high accuracy – even in fog, against strong lights or with other visual limitations such as rain or snowfall. This contributes significantly to greater safety for all road users.



Our site in Linz: The world's first 77 GHz radar chip using SiGe technology in 2009

Technology from Linz can be found in:

Power & Sensor Systems
- Smartphones & tablets
- High frequency switches and amplifiers for reception
- 5G base stations: Reception modules

Automotive
- Radar chips for driver assistance systems
- Distance warning systems
- Automatic emergency braking
- Autonomous vehicles



For better reception

The other key areas of the Linz team's development activities include high-frequency components for mobile telephony and navigation applications, like for example antenna switches and receive amplifiers. With the help of these, end devices can achieve very high data rates even under unfavorable reception conditions. This area of focus also includes the development of front-end modules for receiving antennas for the next generation of 5G base stations.

Find out more about the research location Linz

R&D LOCATION INNSBRUCK

Infineon's sixth site in Austria

The Systems Competence Center in Innsbruck,which opened in September 2023, is Infineon's sixth location in Austria after Villach, Klagenfurt, Graz, Vienna and Linz. In the P3 Tower in Innsbruck's Südbahnstraße, the team of currently ten employees has modern offices and laboratories with test and measurement equipment at its disposal on an area of about 400 square meters.

Systems competence with hardware and software expertise

The center follows Infineon's "from product to system" approach and combines the latest hardware and software solutions to create the first reference systems. The demonstrators developed in Innsbruck for high-performance and miniature microelectronic systems can be used in e-mobility, life sciences, wearables or as service robots in industry, logistics or medical technology. They deliver more performance, enable more features, and convert energy more efficiently to minimize the carbon footprint of digital applications.

An innovation hub for the specialists of the future

The Systems Competence Center provides a "docking point" for young technology talents from Western Austria to deepen their digital skills and systems know-how. Infineon offers industrial internships, the Infineon Schools and support for master's and doctoral theses. This will enable Infineon to establish even closer ties with the university, Tyrolean colleges and regional educational institutions. A strategic cooperation agreement was signed with the University of Innsbruck in July 2023.

Find out more about the research location Innsbruck



Our site in Innsbruck: Systems Competence Center in Austria since 2023

Technology from Innsbruck can be found in:
Power and Sensor Systems
- Photovoltaic systems
- Battery management systems
- Autonomous robotics

R&D COMPETENCE FOR AUTOMOTIVE AND INDUSTRIAL ELECTRONICS IN VILLACH

KAI Competence Center

KAI, a subsidiary of Infineon Austria, conducts publicly funded research projects in Villach together with academic and industrial partners. At the Villach Technology Park, the 60-strong team currently has around 1,300 m^2 of office and laboratory space with metrological equipment at its disposal. KAI's core competency is interdisciplinary research into the reliability, applications and processing of advanced power semiconductors.

Long-standing and successful partnership

For 17 years, KAI has been supporting Infineon's key business areas such as automotive, power and industrial electronics. With its broad network of national and international academic partners, the team combines expertise in hardware and software development for power electronics applications, device physics, materials science and simulation, and chemical analysis. Research is also conducted in the areas of advanced data management and mathematical and statistical modeling. Methods in the field of data science and computer vision are a new area of focus.



RESEARCH COLLABORATIONS

Good alone, better in a network

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 partnerships on a regional, national and international level. For years, Infineon has played a leading role in coordinating EU research initiatives to strengthen Europe's position in the development and manufacture of innovative microelectronics.

IPCEI strengthens Europe as a location for innovation and technology

Since March 2021, Infineon Austria has been part of the European funding project "Important Project of Common European Interest (IPCEI) on ME".
In the summer of 2023, the follow-up and expansion project "IPCEI on Microelectronics and Communications Technologies (ME/CT)" was confirmed, which will start in April 2024.
The goal is to develop new generations of semiconductors based on existing technologies and to quickly transfer them to stable mass production. These include MOSFET and SMART technologies as well as silicon-carbide (SiC) and gallium nitride (GaN), rectifiers and MEMS applications. This accelerates the development and market readiness of cutting-edge technologies "made in Europe". It strengthens Europe's independence in high-tech solutions for electrification, digitalization and CO_2 reduction.
To this end, Infineon is building strategic knowledge partnerships in Europe, including with universities in Sofia (Bulgaria), Zagreb (Croatia) and Ljubljana (Slovenia). This strengthens the culture of innovation and expands the pool of microelectronics experts in Europe.

Advancing cutting-edge research together

Networking as well as deepening and expanding shared competencies in microelectronic and nanoelectronic systems – this is what Infineon is pursuing with collaborations in Austria. R&D partners include domestic research institutions such as AIT Austrian Institute of Technology, JOANNEUM RESEARCH, Fraunhofer Austria Innovation Center "Digitalization and Artificial Intelligence" (KI4LIFE) at the University of Klagenfurt and Silicon Austria Labs. Infineon is also involved in nationwide platforms such as ESBC (European Systemic Business Competences), the Industrie 4.0 Österreich organization, and the Silicon Alps Cluster.

IPCEI on Microelectronics

As part of the European funding project "IPCEI on Microelectronics", Infineon Austria contributes to strengthening Europe as a center of innovation and technology.

175
Research collaborations worldwide



Quantum research “made in Austria”

Quantum computers are a key technology of the 21st century, capable of solving complex problems much faster than conventional computers. With the quantum test laboratory based on ion trap technologies in Villach and the cooperation with the University of Innsbruck and JOANNEUM RESEARCH, Infineon is strengthening Austria’s pioneering position in this field. Quantum expertise is also a key element of the partnership with eleQtron, which has been in place since 2023. This accelerates the hardware roadmap for quantum computing.

Research creates “more from less”

In 2023, three groundbreaking European research projects were launched from Austria: “Listen2Future” is working on the smallest microphones and ultrasound sensors for the most precise examinations in industry and medicine.
The ALL2GaN project is developing the next generation of energy-saving chips based on the semiconductor material gallium nitride to save energy and reduce emissions. At the same time, with “AIMS5.0” and the use of artificial intelligence, Infineon also aims to make its own operations more efficient and resource-saving, and to network along the value chain in the interest of a resilient supply chain.
The projects, with a total volume of €160 million, bring together 125 partners from 25 countries.


Infineon

EDUCATIONAL COLLABORATIONS

Partnerships with “added value”

In view of the accelerated digital transformation, the promotion and exchange of knowledge and know-how are crucial factors. Infineon Austria maintains partnerships with universities to create the best framework conditions for the education and further development of young talents in the natural sciences and technical disciplines in Austria.

Knowledge and technology transfer

For example, Infineon is actively involved in a total of four endowed professorships at the University of Innsbruck, the University of Klagenfurt, and the Technical Universities in Vienna and Graz. Recently, Infineon Austria entered into an academic partnership with the University of Zagreb in the field of power electronics. Infineon is also a sponsor of the “System Test Engineering” master’s degree program at FH JOANNEUM in Graz.

Infineon is a corporate partner in four Christian Doppler (CD) laboratories. Three of these CD laboratories are located at the Vienna University of Technology and one at the Graz University of Technology. The focus in all of the laboratories is on broad-based research into semiconductor materials.

The Josef Ressel Center was opened on the campus of the Carinthian University of Applied Sciences in May 2023. Research here focuses on the automation of chip design. Infineon is also involved in the Virtual Vehicle R&D Center, which specializes in the virtualization of vehicle development.

Infineon Austria CEO Sabine Herlitschka has been Chairwoman of the Advisory Board of the Supply Chain Intelligence Institute Austria (ASCII) since 2023. The ASCII research institute focuses on long-term supply chain analyses.

Doctoral theses: success through excellence

Scientific papers and 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 within the scope of a three-year PhD Excellence Program. The PhD Initiative is a vibrant community and profits from a range of activities, allowing participants to network, learn from each other and discuss ideas with top-ranking specialists in the field of semiconductors. In 2023 alone, Infineon Austria supervised and supported 86 dissertations under the PhD program.

Infineon Austria supports 4 endowed professorships in Austria and 1 academic partnership

Technical University Vienna: Human-Centered Cyber-Physical Production Systems
University of Klagenfurt and Technical University Graz: Industry 4.0: adaptive and connected production systems
University of Innsbruck: Power electronics
Technical University Graz: Data science
University of Zagreb, Faculty of Electrical Engineering and Computing: Academic partnership in the field of power electronics

PEOPLE AS A SUCCESS FACTOR

The key to our success: our employees

At Infineon, the people are the focus. After all, it is their commitment, creativity and expertise that make a significant contribution to the company's success and shape the culture at the Austrian sites.

22%
Women's share

31%
International employees

1st place in LinkedIn's Top 25 Companies in Austria

Best Recruiters Industry winner 2023/24







PEOPLE AS A SUCCESS FACTOR

People create value

People are the focus of all our actions. Only with committed, healthy and successful employees will we be able to shape a successful future. This is also reflected in our human resources strategy: “People create value. Engagement drives people.“

New ways of working

The work of the future will be shaped by megatrends such as digitalization, artificial intelligence and the collaboration of man and machine. New tasks and hybrid work models give rise to new opportunities. Infineon is also taking appropriate steps in the area of “New Work” and is actively shaping the internal and external framework conditions with various initiatives and measures. These include flexible working time models and the option of working from home. “Flexdesk projects” have also been launched. In these, the clear assignment between person and workstation is eliminated in favor of greater flexibility. The concept also gives us the opportunity to test and develop new and forward-looking ways of working. Workplaces can also be used when employees are working from home or on vacation. Infineon also offers bilingual childcare and a comprehensive health promotion program.

Infineon supports its employees in reconciling their careers with their families and in creating a healthy work-life balance, offering, among other things, family care periods such as the “Dad month”, or training and education in the context of educational leaves, part-time work, or sabbaticals. This is also reflected in the “Randstad Employer Brand Research 2023” study. For the sixth time in a row, Infineon Austria is ranked among the Top 10 of Austria’s most attractive employers in the overall ranking.

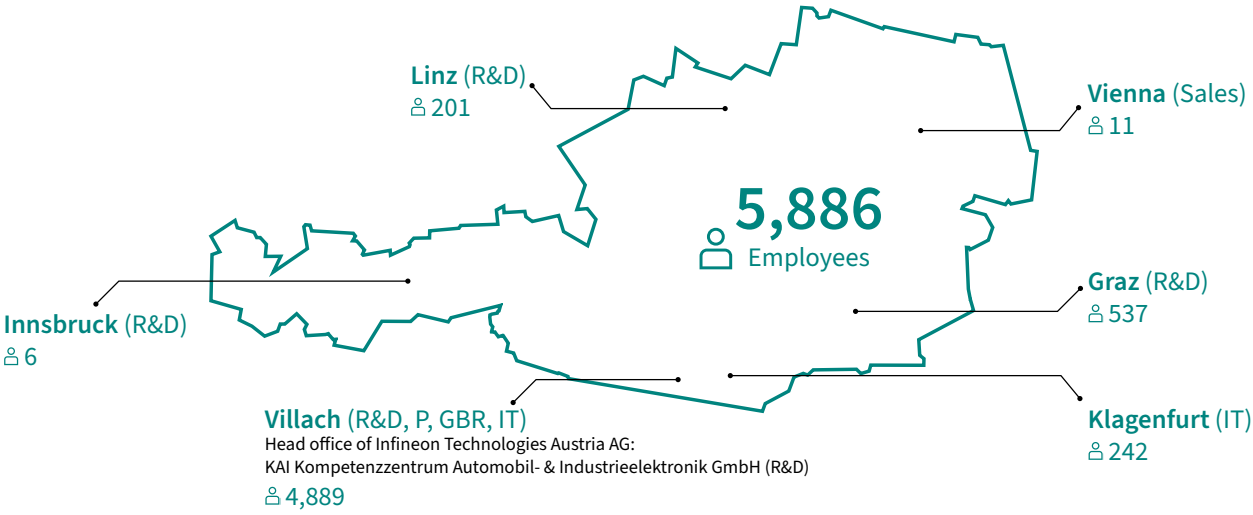
Supporting commitment – individually and systematically

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).



Infineon in Austria



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

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. Eight specifically defined leadership principles offer guidance in leadership issues.

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) is a staff development instrument for goal and career planning designed as a structured interview format. It supports the exchange of ideas and mutual feedback in all areas of work as a key element of the management culture. Its agile approach ensures that feedback is gathered and targets are digitally documented and evaluated throughout the entire fiscal year. In addition, it allows for a definition and adaptation of personal career development. Another feedback tool is the management discussion (Leadership Dialog). It helps managers to reflect on their management style together with their team and to define areas for improvement.

Feedback is obtained from all employees by means of the so-called "GLINT survey".
The focus of the survey is "people engagement," i.e. employee satisfaction and identification. It is carried out twice a year. The results of previous surveys – encouragingly – show a high engagement index.

Continuous development

The most important basis for promoting the development of our executives' leadership skills is Infineon's global "Leadership Excellence" program.



Systematically spanning all levels of the organization, it prepares new managers for their management responsibilities and also assists experienced managers in fulfilling their duties. In the fiscal year 2023/24, the program will be rounded off and expanded to include the "Individual Contributor" career path. The contents enable staff to lead from their respective roles and responsibilities.

In order to overcome future challenges as effectively as in the past, a multi-year "Leadership Offensive" was launched. This has enabled several hundred managers to build and develop their leadership skills in a focused manner. "New Leaders Orientation Training" is held several times a year for new managers. The goal is to prepare them in the best possible way for their role with personnel responsibility. In addition, selected top Infineon managers participated in the global "Infineon General Management Program" with partner university INSEAD during the last fiscal year.

Talent for the future

Customized trainee programs offer attractive entry options for top graduates. Through job rotation, systematic targeted training measures, regular feedback loops and the exchange of knowledge, young talents are prepared to take over demanding functions.

Infineon Austria has launched the Junior Talent Program (JTP) to give young talents the opportunity to develop their personal strengths as well as their personal knowledge in the semiconductor business.

The 18- to 24-month trainee program is primarily aimed at university graduates in technical and scientific fields. The program encourages their individual strengths, develops their social and methodological skills and expands their networks.

In addition, the two-year foreperson training program was continued in the past fiscal year with the "Mechatronics" course for 20 employees. The training combines technical know-how with general educational subjects and the knowledge required to qualify for a more demanding role in the production environment.

Austrian Talent Circle

The "Austrian Talent Circle", Infineon Austria's talent program, aims at attracting, networking and developing future leaders from all divisions and locations. It is based on four pillars: Networking, mentoring, a business challenge, and training sessions perfectly aligned with the goal of expanding the participants' network and helping them grow both professionally and personally. The next "Austrian Talent Circle" was launched in fall of 2023 with 15 participants from three company locations in Austria.

In addition to the talent program in Austria, two up-and-coming top managers were nominated for the "Engine2.0" trainee program. What is special about this "Flagship Talent Program" is that it is geographically focused on Infineon's future markets in Asia-Pacific, Greater China and Japan.

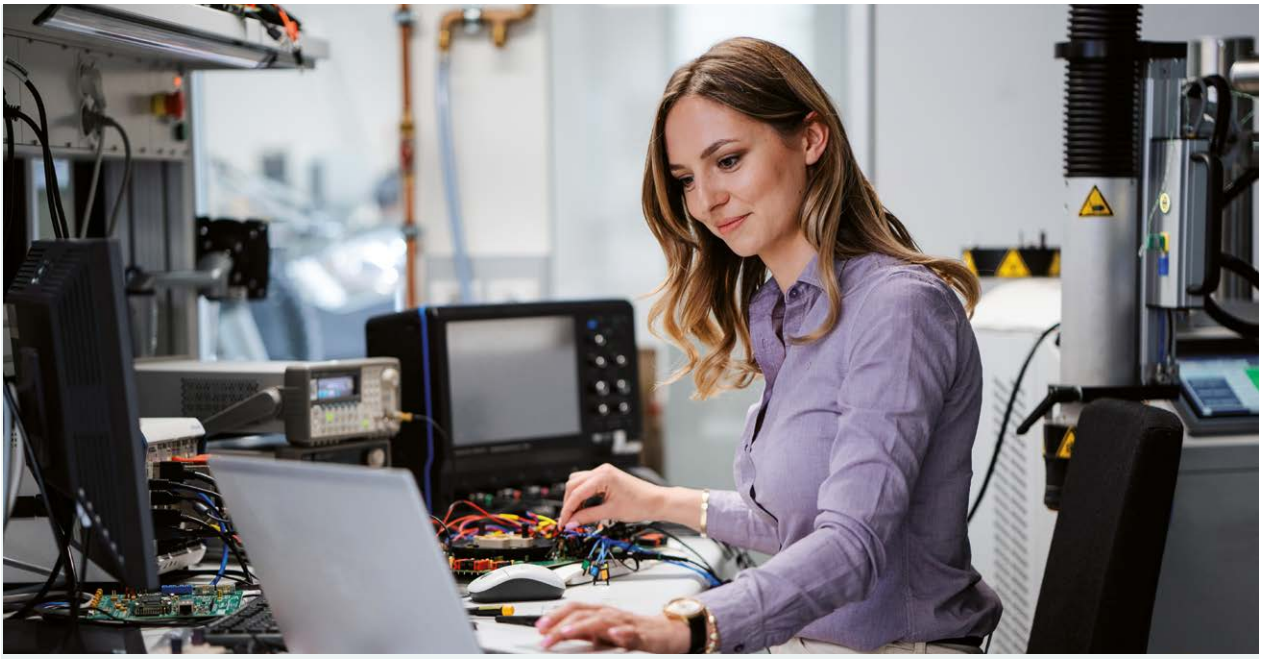
For the 6th time in a row, Infineon Austria is among the Top 10 employers in Austria "Randstad Employer Brand Research 2023"

PEOPLE AS A SUCCESS FACTOR

Embodying diversity together

As Infineon grows, so does the diversity of our workforce. Employees from 79 nations currently contribute to the company's success, 22.2 percent of whom are women. A multicultural and multigenerational workforce requires a new way of working. With its "Diversity & Inclusion" strategy, Infineon is strongly committed to women in technology and in management positions, among other things.

In addition, the company promotes internationality and generational management and focuses even more strongly on creating an inclusive working environment – free of prejudice and with equal opportunities for all. This contributes to individual personal development and creates an atmosphere of recognition, appreciation and belonging, which in turn promotes creativity as well as innovation.



Promoting women in technology

Infineon Austria employs measures such as the Women's Day in Villach to provide interested young women studying technical subjects with an insight into the outstanding professional opportunities available in the high-tech sector. In order to promote career opportunities for women, measures such as mentoring, maternity leave management and career planning are being implemented, and female technicians in top positions are given visibility as role models – both internally and externally.

To further promote these goals, Infineon Austria and the Austrian Broadcasting Corporation (ORF) will award the "Women's Prize for Digitalization and Innovation" for the second time this year. This award is designed to highlight talented young women and their achievements in technology and science. Accordingly, awards are given to women who have focused on digitalization and innovation in their theses.

Actively promoting integration

To help foreign workers feel at home outside of work, too, there is close cooperation with the Carinthian International Center (CIC). This networking platform was founded by Infineon and, with its 46 current member companies and institutions and more than 1,930 individual members from 88 countries, has been making a significant contribution to the integration of foreign employees and their families for over ten years. Infineon also supports a similar initiative, the Club International (CINT), in Graz. Every year, as part of the cross-company integration initiative "Lehre mit Asyl" (Apprenticeship with Asylum) by Carinthian companies, Infineon creates additional apprenticeships for people granted asylum.

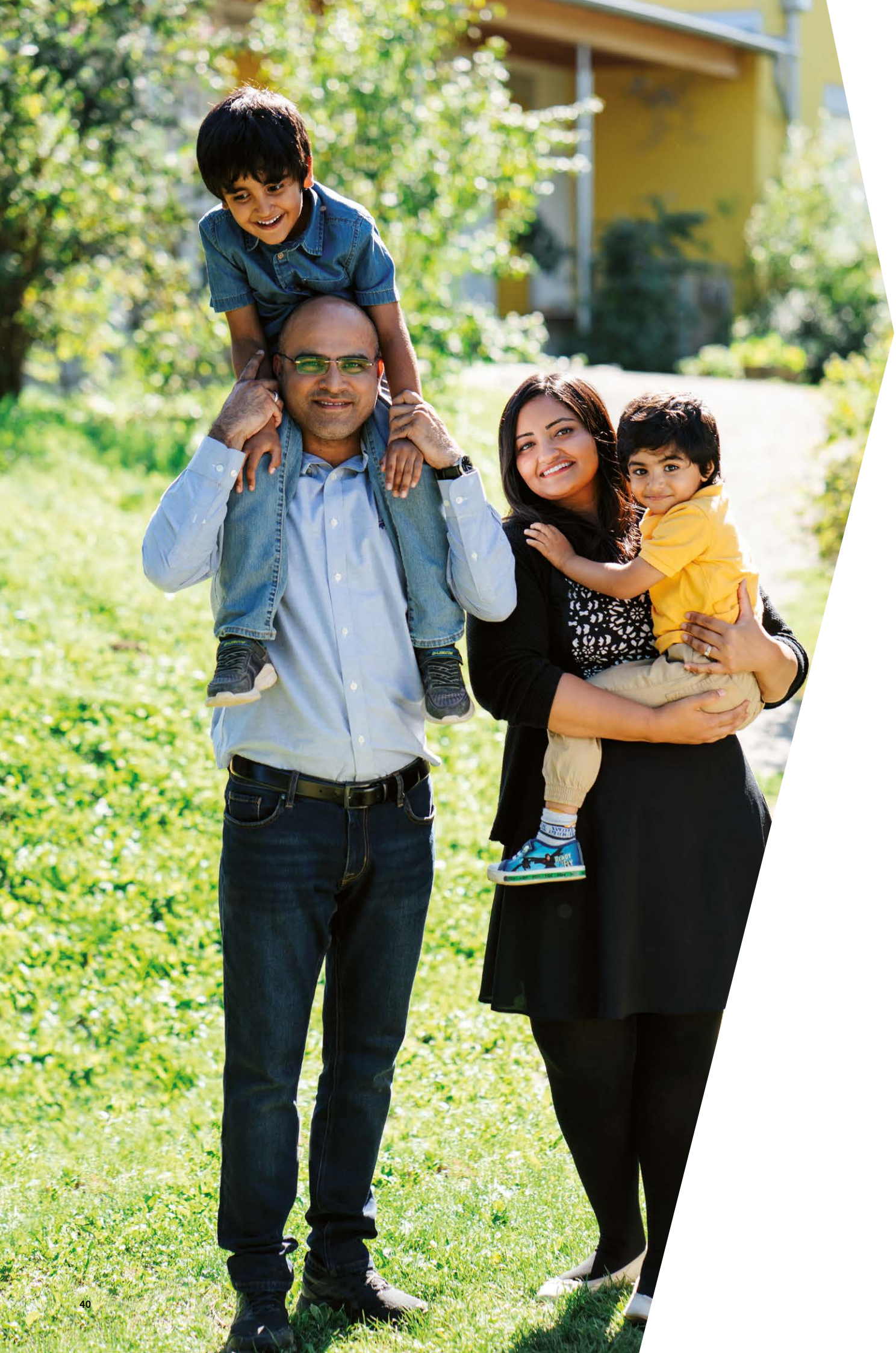
Generation management

A particular focus is on cross-generational learning. Learning partnerships have been established especially to promote the active exchange of knowledge among all age groups. The goal of generation management measures at Infineon is to maintain health, productivity and an innovative spirit across all age groups in the long term.

Diversity and inclusion as a success factor

With its commitment to promoting "Diversity & Inclusion", the Infineon Group was ranked third out of a total of 850 companies in 16 European countries in the "Financial Times Diversity Leaders" in 2023. The survey, conducted by Financial Times and statista, rated employers on age diversity, gender diversity, inclusion, LGBTQ+ and diversity in general.





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.

International care concepts

For this reason, Infineon has created a range of facilities and options, such as multilingual daycare centers in Villach in collaboration with the childcare organization Sonnenstrahl. With only a few days when they are closed and flexible and longer opening hours, these facilities address the needs of our employees in particular. A total of 288 childcare places are now available at three locations in Villach. These International Daycare Centers (IDCs) take care of children from 30 nations, ages twelve months to six years.

International orientation, bilingualism and a focus on technology and science are at the heart of the innovative educational concept.

The International School Carinthia (ISC) in Velden, a private all-day school which uses English as its main language and German as its second language, pursues similar aims. 390 children are taught there according to both the Austrian curriculum and the learning goals of the International Baccalaureate.

Welcome2Villach

As part of the regional cooperation between industry and tourism, Infineon has co-founded the platform 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.



Infineon Austria is one of the most family-friendly companies in Austria 2023

According to an independent data survey carried out by the women's magazine freundin and the rating platform kununu, based on employer ratings.



Reconciling work and family life is a top priority at Infineon Austria. This is also underscored by the berufundfamilie audit.

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 more than 100,000 children, teenagers and students throughout Austria in this way.

Experiencing technology

In 2021, the international kindergarten was awarded the MINT Seal of Approval by the Austrian Federal Ministry of Education, Science and Research for the third time. Under the guidance of Infineon experts, children at the International Day Care Center perform scientific experiments in miniLABs. At the Girls' Day, elementary-school-aged girls can discover their talents and abilities in the technical field in a fun way. With these activities, Infineon Austria encourages students to pursue technical and scientific training and careers. Children are also given an insight into the world of technology at the Summerkids vacation program organized by the Carinthian International Center. For more than ten years, teenagers aged 13 to 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.





Smart World – Smart Learning

Linking digital technologies and skills with industrial tasks – that is the goal of the “Smart Learning” pilot classes launched in 2019 at Carinthia’s five secondary technical schools “HTLs” (Wolfsberg, Villach, Klagenfurt Mössingerstraße and Lastenstraße, and since September 2020 also Ferlach). Together with the Carinthian Directorate of Education, Infineon Austria is an initiator and supporter of this groundbreaking model that prepares young talents for the digital working world. With “Smart Learning”, topics relevant to our time such as electromobility, renewable energies and the “Internet of Things” are integrated into day-to-day school life through practical activities, high-tech and know-how. The concept is designed to run for at least five years.

As part of the “Smart Learning” initiative, Infineon opened a digitalization lab, or “DIGI-Lab” for short, at the HTL in Wolfsberg in October 2021.
In 2022, the initiative was expanded to include the Linz Technikum and the HTL BULME in Graz, so that it is now active in a total of three federal states. Infineon also supports the “virtual class” at the Mössingerstraße HTL 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.



Promoting talents

Digitalization and societal change require new strategies for education and training. This is why Infineon Austria is undertaking a number of measures to promote and develop talent.

Skills for development

Infineon attaches great significance to training and development in all areas as a decisive factor in being competitive. Our approach is based on the 4E model, which allows for a mix of different learning styles and promotes the holistic and continuous development of learning. The main focus is on the execution of technical tasks at the workplace (Experience). Knowledge is also acquired by learning in a network, as well as through feedback and conscious cooperation with colleagues (Exposure). Traditional learning and development activities (Education) constitute another important part. Using a suitable infrastructure as well as appropriate tools, such as webinars and virtual training rooms, learning on demand is made possible directly at the workplace (Environment). 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 as well as digital learning formats for all career paths.

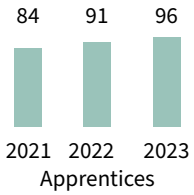
Digital learning formats

The digital formats range from self-paced “learning nuggets” and facilitated “upskilling sessions” to “LinkedIn learning” and virtual coaching.

With the “LinkedIn Learning” platform, Infineon promotes new ways of learning. The platform allows employees to deepen their knowledge with more than 16,000 learning videos and online courses and to further develop their individual skills anywhere and anytime.

As a part of the ongoing digitalization efforts, the range of e-learning courses offered is continuously being expanded, complementing traditional face-to-face training. Thanks to additional PC stations in the production area, the digital learning offer is also available to our production employees in the clean room.

In addition to digital learning formats, coaching is also offered digitally. Employees can choose coaches based on their area of expertise to discuss and reflect on their individual issues. The virtual form of coaching is especially appreciated for its high efficiency in terms of time and impact.



Plenty of news about the apprenticeship program!

Since September 2023, we have been offering a coding apprenticeship together with ÖBB. The new Infineon Apprentice Campus at the tpv Technology Park Villach will open in fall 2024.

State-certified training company

Infineon offers young skilled workers a double apprenticeship in electrical engineering (plant and industrial engineering) and metal technology (mechanical engineering) – a vocational training course that also allows the student to acquire the Austrian high school leaving certificate (Matura).

Future-oriented training

For young skilled workers, Infineon Austria offers a double apprenticeship in electrical engineering (plant and industrial engineering) and metal technology (mechanical engineering) that also allows the student to acquire the Austrian high school leaving certificate (Matura). Currently, around 30 percent of all apprentices are female. In September 2020, the new training format Apprenticeship and Studies was introduced, which is specifically aimed at high school graduates. The combination of a dual apprenticeship in process engineering and electrical engineering (systems and operations engineering) at Infineon Austria and the part-time "Systems Engineering" degree program at Villach University of Applied Sciences opens up a wide range of career opportunities for young talents.

Find out more about Apprenticeship 4.0 at Infineon

Apprentice campus at the tpv Technology Park Villach

Infineon is relocating its apprenticeship training from St. Andrä im Lavanttal to Villach and moving to the training and further education campus of Gemeinnützige Personalservice Kärnten GmbH (GPS). Together with our proven partner, the Carinthian Technical Academy, we will offer our apprentices first-class training with state-of-the-art infrastructure starting in the fall of 2024.

Jobs with future prospects in the key technology of microelectronics: With the launch of the new apprentice campus, Infineon will double the annual number of apprentices from 20 to 40. The proximity to the Infineon site will be a major advantage in the future.

Since September 2023, ÖBB and Infineon have also been jointly training apprentices in the field of coding. The new apprenticeship/training cooperation started with eight young people. They receive an apprenticeship in the field of application development coding.



INNOVATION FACTORY

Leading factory for innovative power semiconductors

Power semiconductors for applications in automotive and industrial electronics are the main product in Villach. The site is considered the innovation factory of the front-end production network, with partner factories in Germany and Malaysia.

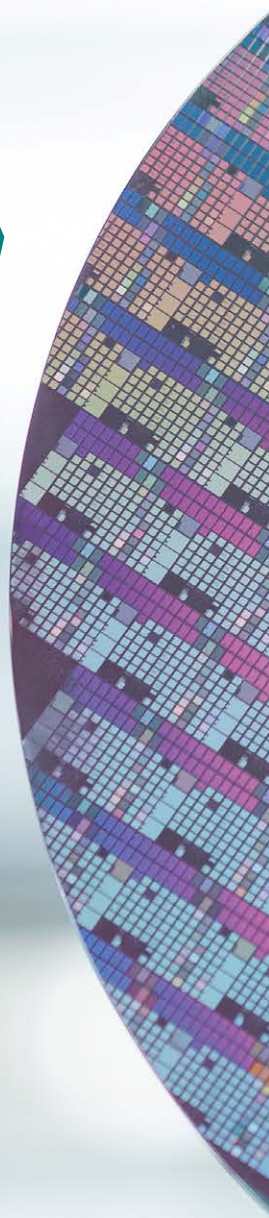
2,000
product types
processed simultaneously

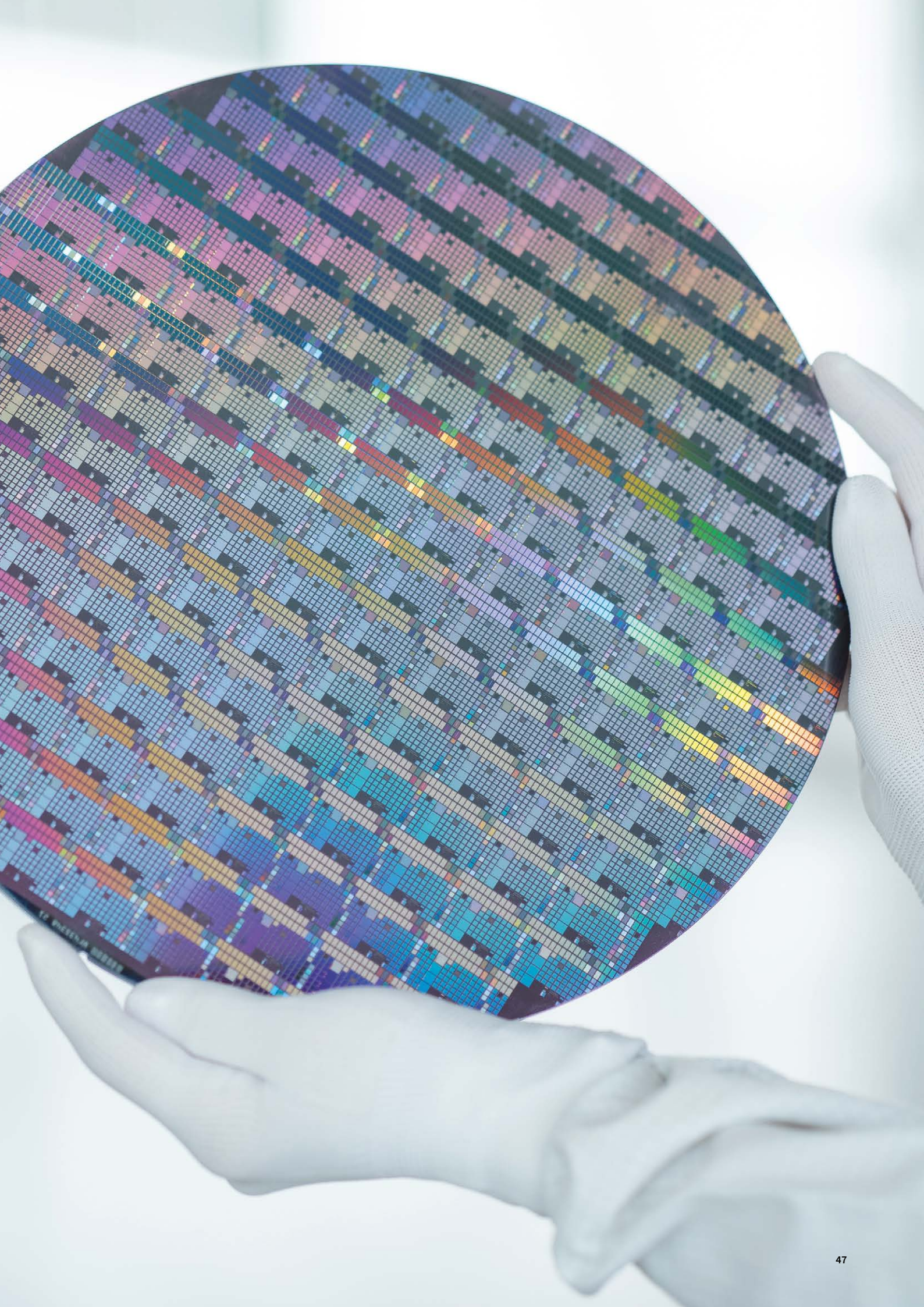
2.3 million
wafers made of silicon,
silicon carbide and gallium nitride

approx. 1,000
individual work steps
for each wafer

9.2 billion
chips produced

1,830
items of equipment





INNOVATION FACTORY

The future is being created in Villach

Villach's high-volume production innovations focus on the areas of single-process development, equipment engineering, new materials, ultra-thin wafers and state-of-the-art automation, digitalization and production concepts. The optimized pooling of research, development and production as well as cross-departmental teams permit short processing times from the idea through to the finished product. The world's first production of power semiconductors in 300-millimeter thin wafer technology served as the foundation. The 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 more than twice as many chips in one production run as a 200-millimeter wafer.

European high-tech manufacturing for power electronics

With its high-tech chip factory for power electronics on 300-millimeter thin wafers that was taken into operation at the Villach site in 2021, Infineon is setting the course for sustainable, profitable growth. The chip factory with an investment volume of € 1.6 billion is one of the most modern in the world and relies on full automation and digitalization. Production is currently being gradually ramped up. As a "learning factory", artificial intelligence approaches are used predominantly in the area of predictive maintenance.

Infineon now has two large power semiconductor manufacturing facilities for 300-millimeter thin wafers, one in Dresden and one in Villach. Both manufacturing sites are based on the same standardized production and digitalization concepts and can be controlled as if they were "one" virtual mega-factory. Production volumes for different products can be moved flexibly between sites. This increases productivity and allows Infineon to respond even faster to its customers' needs.

New semiconductor materials: Collaboration with Kulim

The Villach site is currently expanding and automating its production capacities for power electronics made of new semiconductor materials. At the same time, Villach is supporting the establishment of cost-efficient production capacities for silicon-carbide and gallium nitride power semiconductors at its partner plant in Kulim. The first manufactured SiC and GaN wafers will leave the production line in Malaysia in the second half of 2024.

Bundling logistics

Construction of a new logistics building began in October 2023. The new building will consolidate the logistics units and offices that are currently scattered throughout the site. The new building is scheduled to open its doors in January of 2024. Special attention was paid to sustainable solutions in the construction and use of the building. Installing a photovoltaic system is also an integral part of achieving green building certification.

360° view of the production



Si GaN SiC

Semiconductor materials:
silicon, silicon carbide and gallium nitride

Wafer diameters:

150, 200, 300 mm

Wafer movements a day:

650,000



INNOVATION FACTORY

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 are thin wafer technology and innovative basic materials.

The thinner, the better

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

MEMS expertise

MEMS - microelectromechanical systems - are also produced in Villach. These microsystems are used every day in many areas, for example as tire pressure sensors. The further development of MEMS components will result in an expansion of Infineon's local product, technology and production skills.

New materials for new markets

The Villach innovation factory is the global competence center for the new semiconductor materials within the Infineon Group. 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 key markets of the future, such as solar and wind energy, charging stations and drive trains for electric cars, and mobile infrastructure for 5G networks.

The development and production activities for SiC and GaN, so-called wide bandgap semiconductors, are being significantly expanded at the Villach site. This involves improving semiconductor process technologies, creating state-of-the-art production facilities and expanding the existing production infrastructure. Together with our activities in Kulim, Malaysia, we are playing a pioneering role in this future market.



EPI Competence Center for wide bandgap materials

2023: Launch of the global "EPI Competence Center for new Semiconductor Materials" at the Villach site. In addition to epitaxy, a crucial production step in semiconductor manufacturing, the clear innovation focus here is on systems evaluations and the transfer to the largest possible wafer diameters in SiC and GaN.

Continuous improvement

Customers expect the highest quality. This is also what drives Infineon Austria. Our approach is called Zero Defect, which means not delivering a single defective component to our customers. Infineon adheres to this through 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.
Production supports the continuous certification in accordance with the ISO 9001:2015 quality management standard and the IATF 16949:2016 automotive standard. Smart automation in production and the introduction of Advanced Process Control regulation mechanisms ensure further quality improvements.

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.

Excellent product quality

In 2021, Infineon was awarded the “Best Customer Quality Award” in the automotive sector by Delta. With its “Focus on the customer” strategy, the company qualified for this high award level. With six zero-defect years in a row, Toyota awarded Infineon the Honor Quality Award for excellent product quality in the automotive sector in 2020.

Maximum reliability and precision

Accuracies up to well below 100 nanometers, i.e. approximately 700 times less than the diameter of a human hair, demonstrate the Villach site’s vast technological competence.

Networked manufacturing

The new fully automated 300-millimeter chip factory is currently one of the most advanced in Europe and is designed according to the principles of a learning factory. The use of sensor technology in combination with communication and data processing systems makes it possible for decisions to occasionally be taken autonomously during production. And we go one step further: The production sites in Dresden and Villach can be controlled as a single virtual mega-factory.

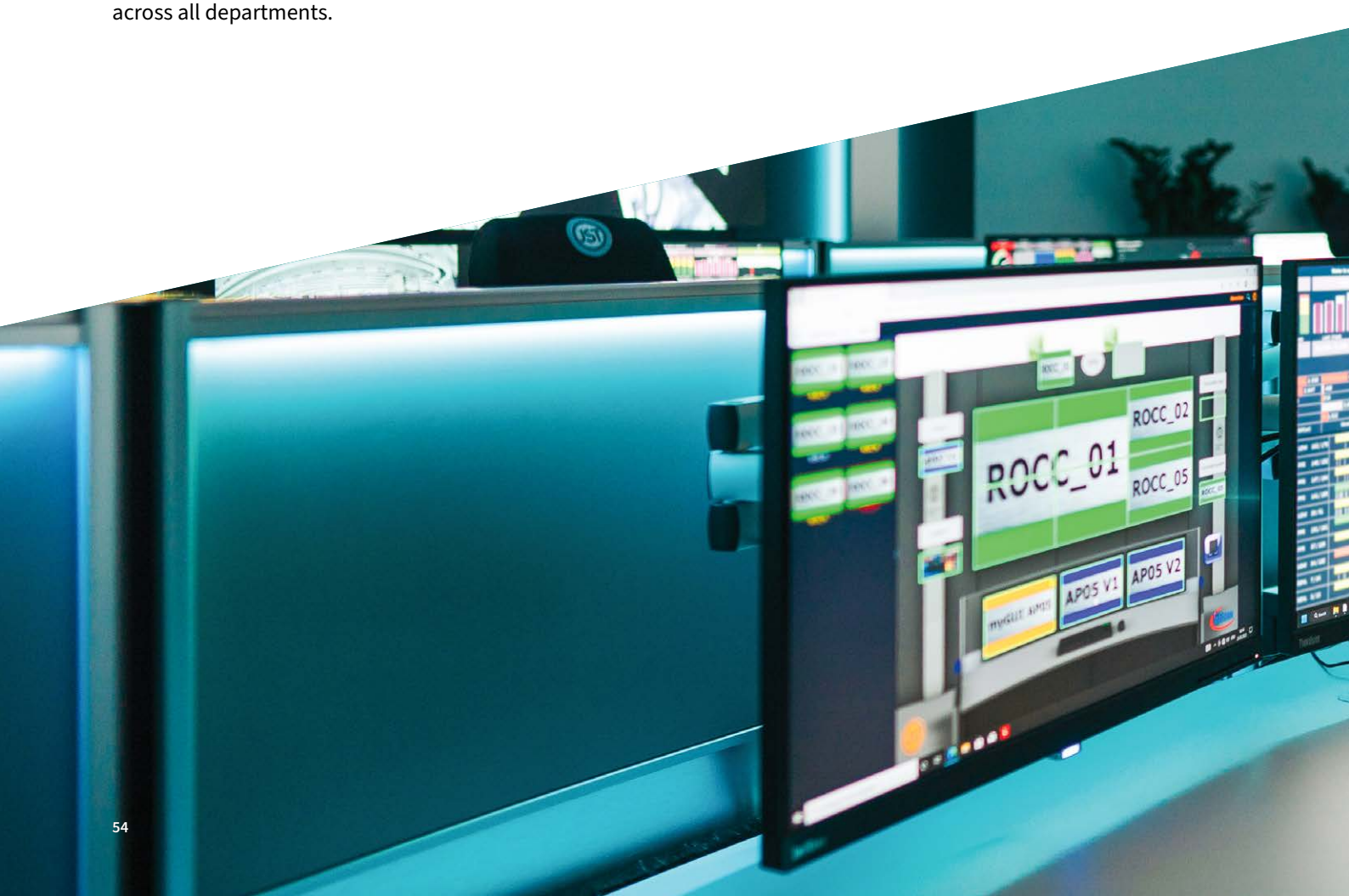
The “Remote Operation Control Center” in Villach was launched in 2023. The fully automated 300-millimeter production in the new chip factory is centrally controlled from this state-of-the-art control center. This allows experts from all areas of production to quickly access and control all systems in the production process. The advantage lies in the faster and more flexible coordination and prioritization across all departments.

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 new fields of work

The new requirements and the ever-increasing degree of automation in production are not only changing existing functions, but also creating new job profiles.



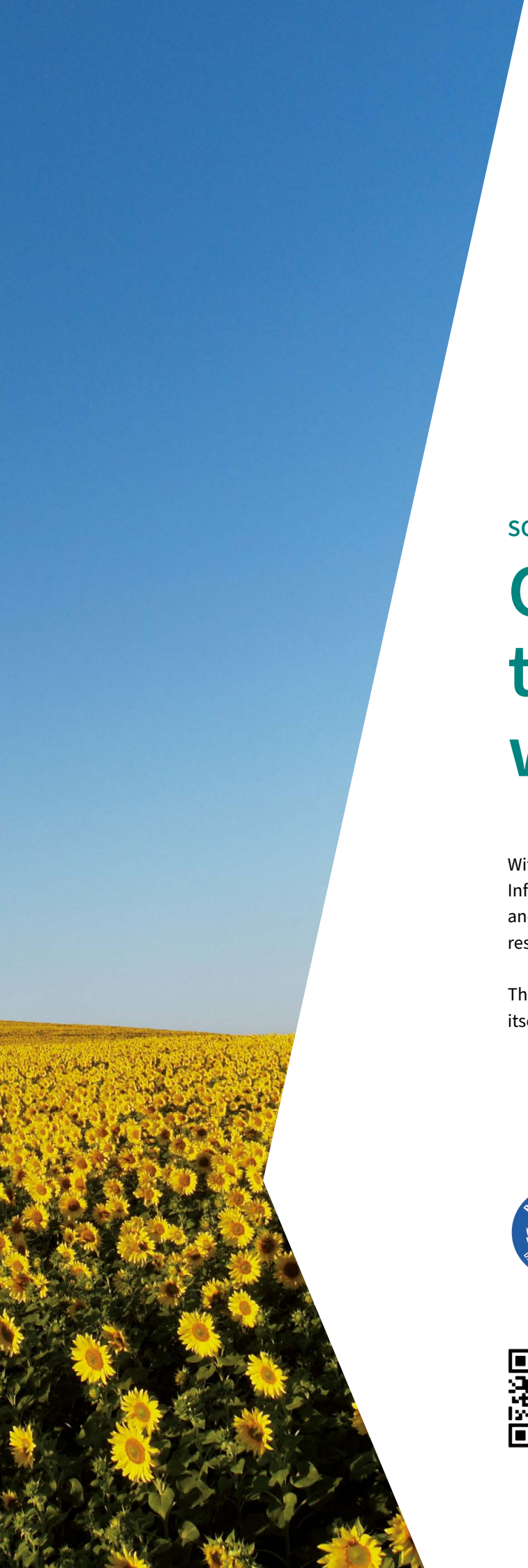
A newly formed team of experts has been working on data, analytics and digitalization for about a year. The focus is on processing and structuring very large amounts of data from the production lines. This data will enable even faster, more informed decisions to be made in the future, which will further improve overall production efficiency.

Automation and digital transformation have also changed job profiles in manufacturing. Specially trained technicians monitor production in control stands and operate the systems. Specially trained production logistics specialists control the processes of an automated factory.

In addition, Infineon is already responding to the increasing demand for skilled workers in the maintenance sector by doubling the number of apprenticeships starting in the fall of 2024. In the fall of 2024, around 40 apprentices will start the dual apprenticeship in electrical engineering and metal technology with and without a high school diploma at the newly built training and further education campus at tpv Technology Park Villach. This offers young talents future-oriented career prospects in Infineon's production environment.







SOCIAL RESPONSIBILITY

Our contribution to a future worth living

With the development and production of innovative products, Infineon Austria is a driving force behind decarbonization and digitalization. Continuous process improvement and responsible behavior contribute to a future worth living.

This is also clearly evident both within the corporate culture itself and in all our dealings with stakeholders.

This brochure is printed on CO_2-neutral and FSC, Blue Angel and Ecolabel certified recycled paper made from 100% waste paper.

Scan the QR code for more information on environmental, safety and energy management at Infineon Austria.

SOCIAL RESPONSIBILITY

For the environment and society

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.

Sustainable mobility solutions

As the largest employer in the region, Infineon Austria has been implementing the corporate mobility management program “Green Way” since 2016, making a major contribution to infrastructural development and the transport revolution. The company promotes sustainable commuting. Public transportation connections are therefore very important to Infineon. With the introduction of a new bus schedule and the expansion of routes in the downtown area, service has been greatly improved: There are now eight bus lines that go directly to Infineon or to the immediate neighborhood. Direct public connections from the surrounding regions have also been optimized. With the climate ticket, Infineon allows its employees to travel by public transport free of charge – both to work and privately. The company also promotes e-mobility. Today, more than 90 electric charging stations are available for employees, company cars and logistics vehicles. In addition, more than 800 employees cycle to work. For this reason, the number of bicycle parking spaces has also been increased in the last few years.

Promoting education – creating prospects for the future

Since the beginning of 2020, the company has been supporting Caritas Carinthia projects for disadvantaged Carinthian children and young people living in poverty with the Infineon Education Fund.
The main focus is on the expansion of the Caritas Learning Cafés. With a total of 105,000 euros in 2023, around 130 children and young people in the Caritas Learning Cafés in Villach, Spittal/Drau, Graz and Mürzzuschlag are being supported on their educational path. In addition, the children and young people receive learning materials when they start school.
In the Learning Cafés, students between the ages of six and 16 receive free assistance with their homework. They are supervised by volunteer study guides. Infineon employees also volunteer here in their free time.





Together for better preservation of nature

As part of its social commitment, Infineon Austria also focuses on ecological sustainability and collaborates with Arge NATURSCHUTZ as well as the District Forestry Inspectorate Villach. Through its voluntary reforestation initiative, the company is helping to protect the region's forests and green spaces and the species that live there, creating new habitats and promoting biodiversity. As a first step, a biodiverse mixed forest with 1,650 trees was planted north of the Tauern Autobahn in the area of the east portal of the Oswaldibergtunnel in the fiscal year 2023. Infineon employees are also involved in efforts to protect nature and have participated in reforestation projects and projects to promote biodiversity. More than 100 nesting aids for birds and bats, which were donated by Infineon at four locations in Villach, are cleaned by the employees twice a year. This year, employees also monitored the small animal tunnels along Infineonstrasse.

Health[2]

Health promotion multiplied by prevention equals healthy employees and the awarding of the quality seal of approval for workplace health promotion. This is made possible by the Medical Service Center at the Villach site as well as the Health Team. The focus is on preventive care, exercise, nutrition and mental health, thereby providing employees with a comprehensive range of health services. In 2023, the main emphasis was on skin health as well as hair and nails. Health Days are also offered each spring and fall. Employees have the opportunity to talk to healthcare experts, take advantage of special offers and try new things. In addition, ongoing screenings, fitness and health services, as well as virtual and face-to-face physical and mental health sessions are provided. The extensive health offering is rounded off by the option of external and internal psychological counseling, which is anonymous and free of charge.





A holistic approach to sustainability

As a global player in the semiconductor industry, energy efficiency and energy savings are essential pillars of our corporate philosophy.
Next step: By 2030, the Infineon Group will be CO_2-neutral and thereby make an active contribution to the climate goals. In order to achieve this goal, the main objectives will be to avoid direct emissions, to further reduce the energy requirements of the plants and processes, and to offset indirect emissions by purchasing green electricity with guarantees of origin.

Infineon Austria also implements pioneering digitalization and automation methods in real-time operations at the innovation factory in Villach. These will be used and further developed in the new chip factory and contribute to greater energy efficiency. This 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.

Green hydrogen for chip production

A milestone in terms of sustainable production and closed-loop recycling is the production and recycling of green hydrogen. From 2024 onwards, the hydrogen required as process gas in production will be generated directly on site in Villach from renewable energy sources. The hydrogen plant was commissioned in the fall of 2023. Production follows the highest purity requirements by means of electrolysis using electricity from hydropower, taking into account the corresponding economic and ecological conditions on site. This eliminates CO_2 emissions during the original production as well as during transport. Concepts for recycling and reuse of the hydrogen used in production, e.g. in public transport, are currently being explored.

Ecological value added

When designing new procedures, technologies and innovations, Infineon attaches great importance to environmental compatibility and sustainability. Approximately 78 percent of the heating requirements for the offices and laboratories at the Villach site are now covered by the intelligent reuse of exhaust heat from production and infrastructure. The extensive use of exhaust air purification systems reduces direct emissions to almost zero. 100 percent of the electricity used by Infineon Austria comes from renewable sources. A diverse range of measures – from air conditioning in the production area to converting to LED lighting – contribute to increasing energy efficiency. Since 2013, approximately 63 GWh of energy (heat and electricity) have been saved through these measures. This is comparable to the electricity consumption of approximately 13,300 households (according to consumption data from the German Federal Environment Agency).

Carbon footprint

enabled by products and solutions of the Infineon Group

~0.4 million tons of CO_2 burden | Ratio ~1:25 | ~10 million tons of CO_2 savings

Net ecological benefit: CO_2 reduction by more than 9.5 million tons



The Infineon Group has been included in the Dow Jones Sustainability™ Index 14 times, making it one of the most sustainable companies in the world.
(As of December 2023)

1,085 **Green Way: environmentally-friendly commuting**
employees use the climate ticket – an offer by Infineon that allows its employees to use public transport free of charge to get to work.

Voluntary commitment since 1997

EMAS

Eco Management and Audit Scheme of the European Union
– EMAS Award: 2009, 2013 and 2018
– active contribution to achieving the United Nations Sustainable Development Goals (SDGs)

Matrix certification

IMPRES

Infineon Integrated Management Program for Environment, Energy, Safety and Health; Matrix certification in accordance with the standards:
– ISO 14001:2015 (environmental management)
– ISO 45001:2018 (occupational safety management)
– ISO 50001:2018 (energy management)

Outstanding achievements

Innovation

1st place, Reputation Report on the Austrian Industry, IMWF commissioned by Industriemagazin	2022
Upper Austrian State Prize for Innovation, Infineon Linz	2021
Upper Austrian Road Safety Award, Infineon Linz	2021
Innovation Award “Austria’s Best” (ÖGVS & trend), winner electrical engineering and physics	2020
futurezone Award “5-G Innovation of the Year” for the European research project “UltimateGaN”	2019
Best Joint Innovation Award, Huawei Core Supplier Convention	2018
Successful Practice Award from the University of St. Gallen, Benchmarking Digital	2018
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

Quality and delivery reliability

Responsible Business Alliance, platinum status award	2023
Best Customer Quality Award in the automotive sector, Delta	2021
Toyota Honor Quality Award	2020, 2019, 2018
Top Supplier Award, Rohde & Schwarz	2019
Partner of the Year, Hyundai Kia Motors Company (HKMC)	2018
Supplier of the Year, Inventec Corporation	2018
Best Quality Award, Huawei Core Supplier Convention	2018
EFQM (European Foundation for Quality Management) Global Excellence Award, Winner	2018
Best Partner of Business Cooperation, Lite-On Technology Corporation	2017
Goertek Best Partner Award for MEMS microphones	2017
Samsung Electronics Quality Award for low-noise amplifiers	2017

Employer

Top 10 Employers in Austria, 4th place, Randstad Employer Brand Research	2023
Ranked #1 among LinkedIn’s Top 25 Companies in Austria	2023
Industry winner Best Recruiters 23/24 in the “Electrical/electronics manufacturing” sector, career Institut & Verlag	2023
Certificate berufundfamilie audit	2023, 2022, 2019, 2016
State-certified training company	2023, 2022, 2019
Austria’s most family-friendly employers, freundin & kununu	2023, 2022, 2021
Integration Award for “Lehre mit Asyl”, State of Carinthia	2019
Best employer, category “Electronics, Electrical Engineering, and Medical Devices”, ‘trend’ survey	2018
trendence Employer Branding Award, “Innovation of the Year”	2018
Career’s Best Recruiter	2017, 2016, 2013

Environmental protection, health and sustainability

GreenTech Award “Future made in Austria” (ÖGVS), winner of the special award for climate protection technologies	2023
Outstanding sustainable commitment, IMWF on behalf of Kurier	2022
VCO Mobility Prize Carinthia: Flagship project climate ticket	2022
Money4Change Impact Award, 1st place in the category “Corporate”, Mercer & Institutional Money	2021
VCÖ Mobility Award, 1st place for Carinthia and Austria	2018
EMAS Award	2018, 2013
Seal of Quality in Corporate Health Promotion	2018, 2016
Smoke-Free Company, Carinthia	2016

Other Awards

The Grand Decoration of Honor in Gold for Services to the Republic of Austria for Sabine Herlitschka	2022
Carinthiacus Award International for Oliver Heinrich, Location Marketing Carinthia	2022
Rose of Recognition, Association of Women Academics (VAÖ)	2021
Sabine Herlitschka, Ring of Honour of the City of Villach	2020
Golden Apple Award for BEST Winter Course “Smart Tech: The Force Awakens” at Infineon in Graz	2020
Investment Award, Region Europe, Annual Investment Meeting Dubai	2019
Nomination Austrian State Prize for PR, category winner “Internal PR & Employer Branding”	2018
Export Prize awarded by the Austrian Federal Economic Chamber, “Industry”	2018
Sabine Herlitschka, Die Presse Austrian of the Year, “Companies with Responsibility”	2018
Thomas Reisinger, Best Manager, ÖPWZ Forum KVP & Innovation	2018
HERMES.Business.Prize, category “International Companies”	2017
EVA B2B Event Award, 3rd place in Employee Events 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

Published by
Infineon Technologies Austria AG
9500 Villach, Austria

© 2023 Infineon Technologies AG.
All Rights Reserved.

Order number: B179-I1118-V3-7600-EU-EC-P
Final version: 11/2023

Stay connected!

www.infineon.com/austria