

## Facts & Figures: ICT in Austria

Austria is a sought-after location for innovation location in Europe in the field of information and communication technologies (ICT). Research in this field is one of the most important areas of research in Austria. For example, Near Field Communication (NFC) was developed with significant Austrian participation. Core strengths also include semiconductors, smart cards/near field systems, RFID and IT security. Silicon Austria, a world-class research center for microelectronics, is currently being established.

Multinationals such as Infineon are committed to Austria as a business location. The country is forging ahead with research with special funding programs, for example "ICT of the Future". Vienna has emerged as an international hotspot for chatbots, and the platform Blockchain Austria is promoting the further development of blockchain technology.

### ICT: key figures:

- 24,000 active companies
- About 290,000 employees in the ICT sector
- Production value of approx. EUR 36.6 billion
- About 6.4% of Austrian value creation
- About 6.6% of all employees in Austria (direct/indirect/induced, FEEI 2014)
- Exports of approx. EUR 13 billion
- R&D investments of about EUR 4.6 billion (Austrian Research Promotion Agency/Statistics Austria/UBIT, 2014)

### ICT priority areas:

- Semiconductors
- Embedded systems (Real-time systems)
- Micro- and nanoelectronics
- Power electronics
- Smart Cards/RFID/NFC
- IT security/Cryptography
- Visual computing
- Artificial intelligence (AI)
- Robotics

Austria offers a dense network of clusters and competence centers in different fields promoting a close alliance between the science and business communities.

### Clusters, networks and competence centers

- Upper Austria, ICT Cluster, Mechatronics Cluster
- Styria: RFID Hotspot Styria
- Tyrol: Cluster Mechatronics Tyrol, Cluster Information Technology Tyrol
- Lower Austria: Technopol Wr. Neustadt, Mechatronics Cluster
- Carinthia: SIC Software Internet

### Excellent specialists, practice-oriented research

In addition to top researchers, highly qualified specialists are required for practical implementation purposes in order to bring innovations to market. ICT Location Austria offers both. Application-oriented training has a long tradition, for example at the numerous technical secondary schools (HTL) and schools with practice-oriented training. Outstanding university training facilities and research

institutions at the Technical Universities of Vienna and Graz, the University of Innsbruck and Johannes Kepler University in Linz alongside the University of Applied Sciences, FH Campus Wien, the University of Applied Sciences Technikum Wien, Austria's largest purely technical college and the University of Applied Sciences FH Joanneum combine to ensure a large pool of computer science experts.

ICT research in Austria is conducted at a high level, whether in the Competence Centers for Excellent Technologies (COMET) strengthening the cooperation between industry and science, or at a university or non-university level. For example, the Software Competence Centre Hagenberg (SCCH) has played

a pioneering role in software-related technological research and development trends. The Carinthian Tech Research Centre in southern Austria is a center of excellence for intelligent sensor technology. Austria is also a top location for visual computing, thanks to the Center for Virtual Reality and Visualization (VRVis).

### Lively start-up scene

The functioning ecosystem in Austria is conceived to promote a lively start-up culture, whether this involves incubators, funding or the Pioneers Festival, Europe's biggest start-up show. With the addition of weXelerate and Talent Garden, two large European start-up hubs, the Austrian business location has become even more attractive for ICT founders.

#### ICT start-ups (selection)

- **Cortical.io** Document software based on Natural Language Processing (NLP)
- **Dynamic Perspective** Unmanned camera helicopters and camera stabilization systems
- **runtastic Software and hardware products in the field of fitness (adidas)**
- **Indoo.rs Mobile indoor positioning and navigation solutions inside of buildings**
- **Nuki Intelligent electronic door locks using smart phones**
- **SES-imagotag Leader in electronic shelf solutions**
- **iTranslate** Leading translation app
- **Wikitude** Augmented reality pioneer
- **Authentic Vision** Distinguishing between counterfeits and original products

### Highly specialized supplier industry

The close interaction of a highly specialized supplier industry linking expertise in complex systems with specialized knowledge in semiconductor chips and ICT comprises the basis for Austria's success. Austrian firms supply eight of the ten largest mobile phone manufacturers.

#### Companies focusing on ICT (selection)

- **TTTech** Global technology leader in the fields of robust networking and safety controls. Strategic partnership with Samsung for safe autonomous driving and joint venture with SAIC Motor Corporation for an intelligent control system
- **AVL List** Largest independent company worldwide for the development, simulation and testing of drive systems
- **Siemens** One of the leading technology companies in Austria, conducts research e.g. in the areas of highly integrated electronics, high frequency and antenna technology, data analysis and system and software architecture
- **ams** Multinational specialist for sensors and chips, founded in Austria
- **LAM Research** One of the leading manufacturers and providers of processing devices and systems for the semiconductor industry, with its headquarters in the USA and research in Austria
- **Infineon Technologies Austria** World's leading semiconductor producer, one of the most research-intensive companies in Austria, the only location outside of Germany bundling competencies for research and development
- **NXP Semiconductors Austria** Competence center for secure contact-free electronic identification systems of the Dutch microelectronics group
- **Atos IT Solutions and Services** Competence center in Vienna for Industry 4.0 of the French IT service provider
- **Frequentis** Austrian high-tech company develops and sells communications and information systems for safety-critical control centers