


# Vienna

DIGITAL  
CITY



MA23



Wirtschaft, Arbeit  Statistik

City of  Vienna

*Vienna is special.*

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### Renate Brauner

Deputy Mayor and Executive City  
Councillor of Finance, Economic Affairs  
and Vienna Public Utilities

Dear readers,

Vienna has many faces. Our economic commitment and political efforts have made us one of the leading IT locations across Europe. Young creative start-ups have settled here as have CEE headquarters of local and international IT enterprises, here is where university research and business cooperate successfully.

Vienna has succeeded in creating a climate of innovation and economic curiosity, adding a new focus to an entire economic area. The city's forward-looking measures have largely contributed to this development: financial funding, enviable infrastructure, active networking across the entire industry and no lack of ingenuity where new potential is waiting to be exploited. This is the breeding ground for continuous growth of IT in Vienna.

All of the above is made possible through the city's funding and support systems: Vienna Business Agency caters to a wide range of different needs and ideas, offering made-to-measure funding and contacts as required. Competitions are organised to reward excellent results and honour outstanding achievements in research and development.

The brochure you are about to read shows the success of our consistent efforts and gives you an idea of Vienna's IT industry today and tomorrow.

Renate Brauner





## Vienna waits for you

Vienna, capital of Austria with a population of approximately 1.8 million, has been recognised as the most liveable city worldwide. Known for its art and culture and a history that runs deep it has not missed out on shaping its future and now plays in the top league of IT locations. The industry holds tremendous potential for innovation, as well as readily available diversity and creativity. Paired with excellent training and research institutions these provide the perfect setting for IT enterprises of all market segments and sizes.

Vienna has drawn in plenty of know how from different areas in recent years, it has established outstanding training facilities and set a vibrant stage for start-ups to thrive on. The US technology corporation Cisco, for example, chose Vienna to premiere its “Entrepreneurs in Residence” program in Europe in cooperation with the Vienna Business Agency.

One of four UN locations Vienna is home to a lively international community, its administration is fit for the times and public transport is one of a kind. The city still holds its ground as a hub for Eastern Europe and is keen to seize the opportunities this historical role has in store. Companies in Austria by tradition have extensive contacts and competences in business with Eastern Europe to call their own. Knowledge of Eastern European languages is also above average among Austrians.

Vienna is the largest university city in the German speaking area and ranks among top EU cities with regard to the share of R&D employees in total employment.

A German study<sup>1</sup> on quality of location for industry and its dynamics has classified Austria and with it Vienna as “strong and growing”<sup>2</sup>.

Ratings like these are not crafted out of the blue. Vienna has been practising sustainable development

very thoroughly, emerging as a “smart city”<sup>3</sup> which is second to none. These are measurable criteria which in combination with the city’s famous hospitality and culture have been accepted as an invitation for many enterprises. An invitation that Vienna has to follow up on. Vienna Business Agency supports participants in using the location’s potential to the full and further expanding it. The Expat Center Vienna supports international experts and managers in getting started and finding their way round in the new environment.

The Vienna Business Agency operates the technology centre aspern IQ that is located in Aspern, Vienna’s urban lakeside, one of Europe’s largest urban development areas.

Thanks to sustainable technologies with excellent energy efficiency the building produces more energy than it uses. The plus energy office complex provides a state-of-the-art work environment for innovative, technology-oriented companies. Today Aspern, Vienna’s urban lakeside, boasts a unique innovation cluster with companies such as research TUb, a subsidiary of the Vienna University of Technology, and the research society Aspern Smart City Research coordinated by Siemens, Wien Energie and Wiener Netze (Vienna public utilities).

Digital City Wien<sup>4</sup> is an independent initiative of committed IT companies in Vienna. Digital City Wien wants to raise public awareness on the importance of IT in Vienna. The project is in cooperation with the City of Vienna and other organisations from the IT sector.

The Pioneers Festival, one of the biggest conferences on entrepreneurship and technologies of the future in Europe, is held in Vienna every year. More than 1,000 start-ups from across the world gather to compete for the Pioneers Award. 3,000 visitors, numerous sponsors and partners have turned the annual festival into a top event not to be missed.

<sup>1</sup> Measuring quality of location for industry in Germany; Cologne Institute for Economic Research 2012, commissioned by Federal Ministry of Economics and Technology (BMWi).

<sup>2</sup> In other words: above average quality of location for industry in 2010, as well as above average dynamics of the quality of location for industry since 1995.

<sup>3</sup> smartcity.wien.at  
<sup>4</sup> http://digitalcity.wien/

## Facts and figures

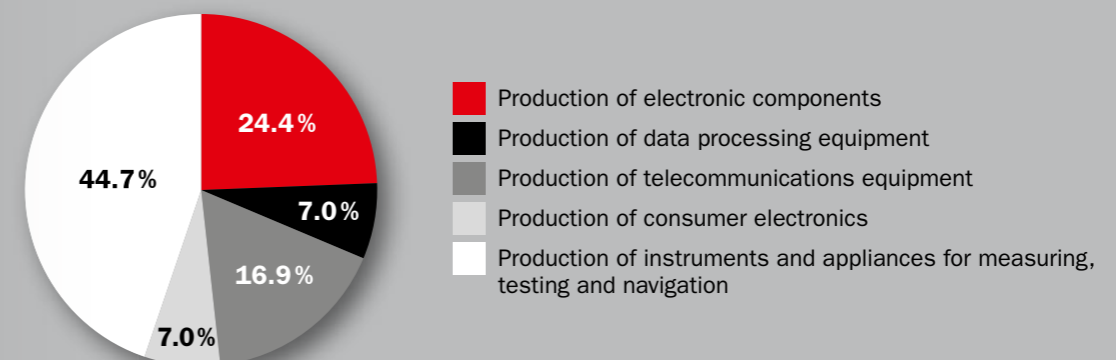
Vienna has strong ties with its environs and together with the neighbouring provinces of Lower Austria and Burgenland forms the “Vienna Region”. The following IT data illustrate the relationship between Vienna, the Vienna Region and Austria as a whole:

Structural and performance indicators for IT, 2012 (definitions according to OECD classification):

	Vienna	Vienna Region	Austria
Number of businesses	5,828	8,962	15,481
Employees total	54,523	64,223*	105,900
Persons in dependent employment (total)	49,229	56,074*	91,526
Proceeds and income in 1,000 EUR	19,435,728	21,090,842*	29,426,611
Gross value added at factor costs in 1,000 EUR	5,498,063	6,098,409*	9,225,650

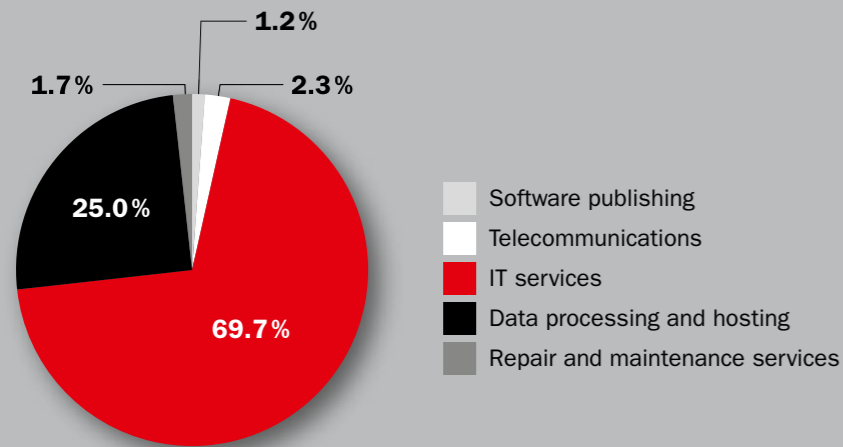
\* lower limit due to nondisclosure in some segments.  
Source: Statistics Austria, performance and structure survey (LSE) 2012, MA 23

Enterprises in IT production by segment in %, 2012, Vienna Region



Source: Statistics Austria, LSE 2012.

Enterprises in IT services in % by segment, 2012, Vienna Region

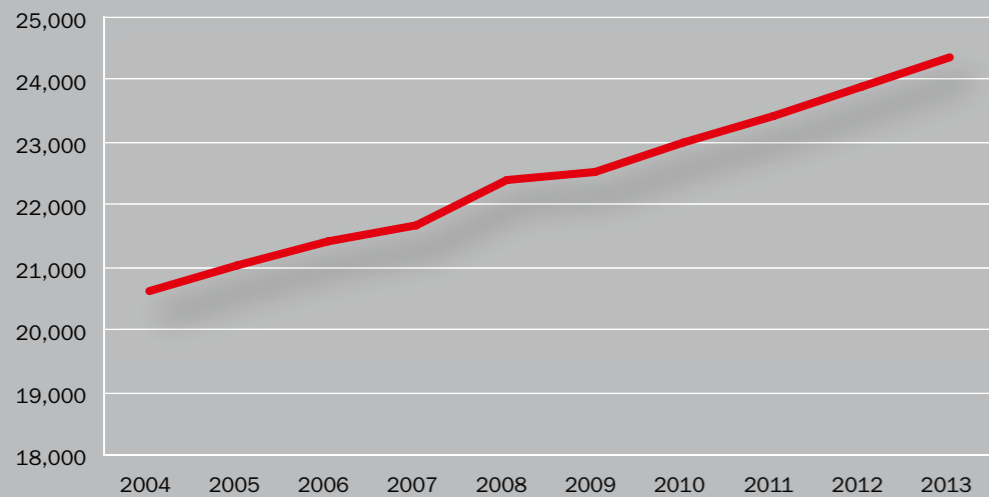


Source: Statistics Austria, LSE 2012.

## Vienna's IT market is growing

- » Viennese IT enterprises have continued to fare well even in times of economic hardship. Sales figures rose by 10% in 2013 and export revenues in particular increased sharply.
- » The number of people working in IT in Vienna is rising steadily.
- » IT enterprises are increasing continuously.

Active members of the IT group at the Vienna Economic Chamber



Source: Detailed member statistics of the professional association UBIT (consulting and IT)

## Vienna is a top IT location

- » On average 1,000 IT graduates enter the labour market each year.
- » 1,000 international enterprises have settled their coordination headquarters for Eastern Europe in Austria.
- » Main markets for IT products are in the EU but Vienna is also a hub for Central and Eastern Europe. Most direct foreign investments go to Eastern and South Eastern Europe.
- » There is a wide range of attractive real estate. Office rent in Vienna is among the cheapest in Europe.
- » Vienna's labour productivity is among the highest across Europe – 50% above the EU average.
- » Austria does top-level R&D in several areas, primarily embedded systems, mobile communication, microelectronics and visual computing.
- » Vienna's infrastructure, especially in mobile communications, is state of the art, its broadband penetration is one of a kind. The city leads the way in e-Government and open data as proved by awards such as the e-Government "European Champion" or for the Vienna virtual office.
- » Vienna and Austria have developed numerous direct and indirect funding models for innovation-minded enterprises. There is excellent fundamental research along with multidisciplinary applied research, a dense network of internationally renowned competence centres, science and business clusters for businesses to fall back on.

## Did you know that...

- » Vienna is among Europe's largest IT locations, behind London but quite on a par with Munich and Helsinki?
- » UBM has rated Vienna one of ten "Top 10 Internet Cities" worldwide? The British company in a recent study on how communities handle the World Wide Web awarded Vienna top grades for various criteria, such as connection speed, WIFI availability, innovation spirit and open government data, i.e. provision of data from public administration<sup>1</sup>.
- » Vienna regularly comes in first at Mercer's quality of life rankings worldwide?
- » out of 70 cities compared internationally Vienna is the most successful and most flourishing worldwide? The UN organisation "UN-Habitat" has published a relevant study entitled "State of The World Cities 2012/2013".
- » Vienna has been ranked number one in the 2014 World's Most Reputable Cities ranking published by the Reputation Institute?
- » in August 2013 the US Internet ranking platform "list25.com" voted Vienna number one of the 25 "Best Cities For Young People To Live In"? New York came in second.
- » Vienna is one of the most popular congress locations worldwide with approximately 200 international conferences annually (2014 – in second place, source: International Congress and Convention Association, ICCA)?
- » strike days in Vienna are unheard of as a rule? (source: Vienna Economic Chamber)

<sup>1</sup> Open.wien.gv.at

## Competent host to the world

Gone are the days when you could easily distinguish between Vienna as a location for international IT corporations and its role as a place of origin for Austrian IT businesses. Too closely knit the ties that have made them both so successful at the core of Europe.

### Top notch IT from day one

Being so close to so many teaching and research facilities concentrated in one place Vienna has been a perfect breeding ground for local IT from the very beginning. It was right here that in 1956 "Mailüfterl", the first large-scale computer worldwide, was built by professor Heinz Zemanek, not to mention the almost 6,000 IT enterprises currently settled here. Well before the fall of the Iron Curtain Vienna was a much-sought-after CEE headquarter for many international corporations, as well as home to major listed IT service providers, such as BEKO, air traffic control experts Frequentis, as well as Kapsch, a well-established Viennese company and now a rapidly growing provider of transport solutions across the globe.

#### Global Players shop in Vienna

In 2013 CISCO acquired the Vienna-based company SolveDirect, expert developers of cloud-based software and services with emphasis on service management integration. The acquisition is to support safe data exchange between different enterprises and cloud systems without having to resort to manual adaptations. It is quite apparent that CISCO is consistently expanding its "string of pearls". 11 acquisitions were made in 2012 and in 2013 three companies were either completely or partly absorbed by the top network player: following an Israeli software developer and a Czech security provider CISCO went on to buy SolveDirect and its successful product ServiceGrid. Vienna has proved the perfect stage for international business networks.

#### Everything on track: KAPSCH CarrierCOM

Not that long ago European railway traffic had to cope with more than twenty different signalling systems and almost as many train radio systems. It was not uncommon to switch systems or have passengers change trains at the borders. The new European Railway Traffic Management System (ERTMS) currently developed is to make train services across Europe more efficient, faster and safer at the same time. Kapsch Carriercom, a well-established company that has since gone global, is playing a major role in the research, development and gradual implementation of the GSM-R technology devised for the purpose. More than 100 research experts in Vienna are contributing their know-how and experience to support international communication between ever faster trains and control centres. 80 million Euros are being invested in the course of four years to furnish high-tech solutions for the demands of today's European railway traffic.

#### Faster than ever

Alcatel-Lucent and A1 have successfully reached transmission speeds of one Gigabit per second via copper cable, a feat hitherto accomplished with fibre optic cables only. The international company has a seat in Vienna and in cooperation with Austria's largest telecommunications provider has set upon tackling an issue of significant relevance for many European cities with old structural fabric. European agglomerations, the people who live there, the environment, traffic and ultimately budgets too are put under enormous pressure when old cables need to be replaced. Soaring demands on net capacities suggest that increased usage of existing copper cables is a viable option. G.fast, as the technology is called, is to become marketable by 2016.

#### Smart meters for smart clients

Vienna-based Kapsch Smart Energy (KSE) is holding a strong position on the market with its smart energy grids and meters. The company specialises in supplying and implementing the full range of infrastructure components, as well as integrating applications related to smart grids. Services include project design, project management, system integration, maintenance and operation.

These end-to-end propositions are made possible through the group's extensive know-how in machine-to-machine communication (M2M) and safe operation of complex communications and IT systems. Just as sister companies CarrierCom and TrafficCom Smart Energy will stand its ground internationally and rely on existing networks.



# IT and smart city

**Providing information and communications technology for modern cities means meeting demands and creating opportunities. Vienna does so for itself and for the industry as a whole. A win-win situation!**

## Smart City Wien Framework Strategy now adopted

The Vienna City Council has adopted a "Smart City Framework Strategy"<sup>1</sup> as a long-term strategy to be implemented by 2050. The overall goal of combining top quality of life for everyone in Vienna with maximum resource efficiency requires comprehensive innovation. What is more, the new Vienna Strategy for Research, Technology and Innovation will be published late in 2015.<sup>2</sup>

### Vienna is its own showcase

Vienna supports and streamlines opportunities that help it grow. As a smart city it focuses on its many research facilities, the transport and energy solutions offered by different providers, as well as people's demands on affordable quality of life, health, education and leisure time. Major international enterprises, as well as small and medium-sized ones are generating products and services to promote research, design and development of urban space. The city is client, employer, beneficiary and development driver all in one. Providing services for citizens also means providing open data so that everyone concerned can access information. Very smart!

### Smart Vienna

UBM's online portal Future Cities put Vienna among the top ten Internet savvy cities. Vienna does particularly well with regard to innovative power and bandwidth. Its average broadband speed of 28.31 Mbit/s is well above that of New York (21.17 Mbit/s). Intentions are to further expand Internet bandwidth. What ultimately lead UBM's Future Cities to rate Vienna a top Internet city is a combination of the above and the fact that Vienna supports start-ups, is big on sustainability issues and that LTE mobile radio and WIFI are widely available. Special mention is made of Aspern, Vienna's Urban Lakeside and a major "smart-city project" to be completed in the coming years as a model for forward-looking city districts. Vienna ranks among top Internet cities Amsterdam, Geneva, Hong Kong, Montreal, Prague, Seattle, Seoul, Stockholm and Tokyo.

### AIT – a link between fundamental research and industry

AIT, the Austrian Institute of Technology, because of its multifaceted activities in applied research and application of innovative infrastructure solutions, has taken on a leading role with innovations in Austria and across Europe. There are three major locations in Vienna plus several smaller ones in the provinces where AIT pursues a wide range of projects in energy, mobility, safety & security, health & environment, as well as innovation systems. Small wonder an organisation this powerful has a lasting influence on IT innovations and timely incentives in Vienna. A conference on ambient assisted living co-organised by AIT gives an idea of the organisation's focus and the effect this can have on urban structures like those in Vienna. Participants from industry, research, funding and nursing services joined forces to promote an Austrian vision of technologies and services for autonomous life styles, especially for the elderly. The eHealth Summit Austria dedicated to "outcomes research: the benefits of health IT" was a further highlight of AIT's event calendar. The event was split into a user-oriented and a scientific part to tackle a variety of burning healthcare issues such as electronic medical files, eLearning, decision support, as well as use cases in eMedication.

### Smart. There is no other way.

Vienna has been recognised as a "smart city". While experts are not clear about which criteria will ultimately be measured in which metrics to maintain a widely accepted global ranking, everyone agrees that Vienna is right up there where smartness is concerned. And for good reason too. Dr Boyd Cohen, American smart-city guru, has been working on a sound classification of city smartness for some years based on a six-pillar model developed at the Vienna University of Technology in 2007 which consists of environment, life, government, mobility, economy and people. Cohen has expanded this approach into a smart cities wheel with subcategories.

Vienna performs exceptionally well by European standards: "the idea behind smart cities is to employ resources efficiently and reduce the ecological footprint using innovation and technology." People are our customers and their needs must be met.

Vienna is doing an excellent job. What marks a city in the 21<sup>st</sup> century? What are the prerequisites for it to thrive on? Many cities have already set to work with highly ingenious investments in the future. They all use social media, high-performance infrastructure, research facilities and funding programmes in one way or another. Yet Vienna seems to fare better than others. Innovative technology is a vital trigger for developing better quality of life. Vienna is one step ahead.

<sup>1</sup> smartcity.wien.at  
<sup>2</sup> https://innovation2020.wien.gv.at/site/



# Bubbling innovation

**Vienna has become a hub of innovation and development. New ideas need new enterprises, new enterprises need new ideas, each and every day.**

## Caution and spontaneity

Planning and monitoring innovation is a risky business. Over the years Vienna Business Agency has knit a powerful network of representatives and players in the industry. The IT cluster offers assistance and a keen ear when asked for and steps aside when red tape and regulations become a nuisance. A vast range of facilities has been established to help with requests and funding, information and networking, paving ways and minimising risks for start-ups. Time-to-market has become a crucial asset. Treating it with caution is our way of doing things.

### Vienna State Opera “live” at home

Opera enthusiasts around the world can enjoy live transmissions of Vienna State Opera performances in their homes: digital opera dreams come true with high-performance live streaming in Full HD or Ultra HD quality. The transmissions are based on technology developed by the Vienna-based service provider NOUS, winner of the 2015 State Award for Multimedia and e-Business. Specialising in innovative solutions for cultural institutions the NOUS team is now a leading digital solutions provider in the field of art and culture, with branch offices in San Francisco and Denmark. An impressive list of references reflects the know-how and innovative power of Nous. The success story started with the diversity of museums based in Vienna, and with products like an ExhibitionPad for Kunstkammer Wien or an interactive museum guide for the Albertina Graphics Collection. NOUS then developed a web-based content management system for the Perot Museum in Dallas, a tablet guide for the Museum of Egyptian Art in Munich...

### A vibrant job portal is now live!

The Viennese start-up Whatchado has created a video portal targeting on job applications and job searches cut to the needs and interests of today's job seekers. It is online, easy to use without endless forms to fill in, takes into account young people's curiosity and companies' needs. Descriptive clips are to the point, responding to concise and relevant questions without being as dead serious as the labour market sometimes comes across. Tests filter out individual aptitudes based on which they then offer job suggestions. The portal currently registers 110,000 hits per month, with sales likely to double, staff having already increased from 5 to 25 within the course of a year. Business Angels are supporting young Whatchado, anticipating that traditional recruiting will soon be a thing of the past. About 3,300 people are currently telling their story online. The portal supports selective viewing. It is also known as Business Dating, indicating that businesses can find each other like two of a kind.

### eHealth APP made in Vienna: mySugr

Measuring blood sugar, calculating bread units, injecting insulin – for more than 200,000 Austrians and 1.8 million Germans it is routine like tapping their smart phones. Coming to grips with the “diabetes monster” is what the Vienna-based and now international start-up mySugr GmbH set out to do. The latest software update has come just that little bit closer. Developed in cooperation with Sanofi-Aventis, one of the biggest pharmaceutical companies worldwide, this major update was put in the App Store just recently. Companion App is another of mySugr's smart inventions, devised as a digital diary where diabetics can store, manage and analyse their diet, sports and health data. Finally it is possible to link your blood glucose meter to your smart phone and load measuring results directly onto the app.

Successful implementation of this first diabetes app and registration as a medical device was made possible primarily with the assistance, advice and crucial contacts of INiTS from the very beginning. INiTS is a Vienna-based centre for the AplusB programme initiated by the Federal Ministry for Transport, Innovation and Technology. It is operated by Vienna Business Agency, the University of Vienna and the Vienna University of Technology.

### Pioneers at the PIONEERS Festival

PIONEERS has long established itself as a major European festival and highlight for start-ups and innovations in Vienna. It has been a meeting place for engineers, financial experts, investors, starting entrepreneurs and a keen audience from the very beginning. The organisers have designated Vienna the European start-up metropolis and that is hardly an exaggeration.

It is not just the prominent international speakers that regularly bring the house down. In 2014 a total of 3,000 visitors, experts and users attended the conferences and presentations and viewed the exhibitions at the Vienna Hofburg conference centre. 90-second pitches at the Start-up Academy received positive feedback and some even got an offer for cooperation right away. Of course, there was a start-up challenge too. Last time more than 1.000 start-ups from all corners of the world participated. The best fifty were given the opportunity to present their projects at the Investor's Day. Winners were awarded the Pioneers Festival Award and won trips to Silicon Valley, Singapore and Shenzhen.



# Digital creativity

The games sector and creative industries are in need of talents. Competition is stiff and international. Vienna can stand up to any comparison.

## Made in Vienna

Outstanding graphic competences, inspiring stories and the nerve to break new ground make up the fabric of success. Visual challenges and challenges of substance are setting the entire community on fire. Nobody is an island. Vienna is organising awards and events to set incentives and has launched its own initiatives plus an active network to support developments. Success proves us right. Even Disney once shopped at Arx Anima.

### Outstanding innovation

The Content Award Vienna was initiated by the Vienna Business Agency in 2009 to bring media professionals in Vienna into the public eye and to reward innovative formats in the new media. The City of Vienna offers a wide range of funding and consulting facilities for innovative entrepreneurs. The Content Award Vienna supports innovative production and opens up windows of opportunities for commercial utilisation of these formats. It is one of the most highly endowed awards for digital content in Austria and a major stepping stone for a career in creative industries. For example, the game "Of Light and Shadow" programmed by the 2012 winner was the only Austrian game to be nominated for the worldwide A MAZE Indie Games Award. The 2013 winners in the animation category already work for high-profile international customers including BBC and Disney.

### Knowhow from Vienna for Vienna underground

VRVis, the centre for virtual reality and visualisation research in Vienna, is Austria's leading institution for applied research in visual computing, and an internationally renowned one at that. The centre is actively involved in the federal and the local governments' research initiatives and currently employs approximately 45 top notch researchers at its TechGate Vienna location.

VRVis has developed video training for underground train drivers to prepare them efficiently for new line sections. There is a film to simulate a range of vision of 270 degrees, which is exactly what the driver sees from within the cabin, creating true-to-life training conditions. A real driving simulator is currently being developed and soon to be commissioned. Aside from the practical aspect the video system provides a cost-efficient complement for training future train drivers.

### An avatar for better communication

Vienna-based SignTime, IT experts matrixx and IBM put their minds to developing a system that would translate text into sign language. SiMAX quickly translates texts on the Internet, contents on TV and communication in public space, such as announcements for public transport. The biggest challenge in developing the system, aside from true-to-life fluid movements, was to incorporate the mimics and emotions so vital to sign language. SiMAX is a self-learning system based on an animated avatar that produces simple, quick and high-quality translations from sound to sign language like never before.

The prototype has now been completed following several years of research and development. Following a feasibility study for the sign language avatar the project was awarded research funding from the Austrian research funding society FFG. The system's vocabulary is updated regularly. The current prototype uses German sign language but in principle can be expanded to any sign language worldwide. SiMAX is soon to be offered as a cloud service making it even more readily available. There are approximately 100,000 deaf people living in the German speaking area.

### No more chasing the tram

Qando is an app that uses Open Data to let you know when and where to catch the nearest bus, tram or underground. No need to select, set or wait. Freezing at the bus stop is a thing of the past: the independent app recognizes your location so just check it as you leave home to see when the next bus will be at your nearest bus stop. Walking distances are included. Departure times within easy reach are highlighted. Information on transport mode facilities is complemented by locations of Citybikes and car2go. Willi is an app to help you plan your route and calculate your best connections in real time. It also uses Open Data from Vienna Public Transport the updated timetables of which are displayed electronically at bus and tram stops. Public transport in Vienna, which has long been one of the city's flagship products, has received a further boost for user comfort that has yet to be matched elsewhere in Europe.



# Spinoffs and venture capital

**IT experts have developed exemplary solutions for specific applications. University and scientific research provide the basis for complex projects and even enterprises further down the road.**

## Technologies for niche markets

Business ideas turn into marketable high-end solutions that compare well with international benchmarks and gain a competitive edge in their segment. These include semantic applications that make big data more readily available, as well as innovative visualisation systems developed for greater efficiency in a wide range of different processes. Viennese enterprises are right up there.

### Leave the garage behind!

It has finally come true. Technikum Wien (university of applied sciences for engineering in Vienna) now offers three-semester courses for app developers, web developers and social media managers. They provide sound and concise vocational training at an academic level. The courses are worth 60 ECTS points and may be credited to other university courses later on. Special emphasis is placed on transferability with other training programmes. Vienna now has yet another formal programme as a complement to the booming development of creative industries. The next course for approximately 40 students starts in autumn 2015.

### Economic success more than welcome!

For more than ten years now the fruits of teaching and research at universities have spilt onto the market. Business incubator INITS is encouraging the process with a practical funding programme cut to the needs of graduates, teachers and students at universities and universities of applied sciences in Vienna wanting to make their innovative ideas become reality. The programme expertly guides them through their first steps into the business world and provides financial assistance as well. With the assistance of the private sector a total of 200 million Euros have so far been invested for 139 start-ups, one third of them in IT. Decision-making bodies for technology and business at INITS are made up of representatives from universities and Vienna Business Agency. The effect INITS has had on young enterprises in Vienna is quite remarkable. More than 800 jobs have been created, some of them highly qualified, and a total of 544 patents have been registered to date.

### Wind energy networks at full capacity

Enervis is a project initiated by VRVis – the centre for virtual reality and visualisation research GmbH, HAKOM Solutions GmbH & Co.KG and Austrian Power Grid AG to explore application and targeted further development of visual analysis technologies that will tackle a number of different issues relevant to the energy sector. Visplora, a software system developed by VRVis, is used to analyse and optimise forecasts related to renewable energies, prices and energy losses. VRVis visualisation experts and Hakom energy consultants have come up with Europe's leading IT solution for energy markets which for the first time ever reveals hidden patterns in the data.

Massive expansion of green wind and solar energy because of the huge swings in energy generation has proved an enormous burden on power grids. Germany for instance, only recently had to give away electricity to neighbouring countries due to short-term overproduction. The two Viennese IT companies have developed the software to solve the problem and are already raking in success on the export market. Leading German energy companies and Moscow utilities are among their beneficiaries. The intelligent tool makes grids run to full capacity while helping companies save millions because they can plan ahead and purchase resources when and as needed.

The jury for the eAward 2013 found Enervis to be a sophisticated IT solution with a wide scope of application. Yet another example of innovation made in Vienna!

### Two exemplary IT role models for Vienna

ANECON Software Design und Beratung GmbH (design and consulting) established in 1998 and seated in Vienna with approximately 100 employees is one of Austria's leading medium-sized software companies and solution providers. In 2010 a subsidiary was set up in Dresden and in 2012 another project office was opened in Munich. ANECON develops innovative individual software solutions, it leads the market for software tests and offers quality IT consulting and training.

IKARUS Security Software GmbH is an Austrian pioneer for software industry and is seated in Vienna. Its focus is on anti-virus and content-security solutions. Established in 1986 it has been developing security solutions ever since and today is considered one of the top anti-virus manufacturers worldwide. IKARUS invests approximately 75 percent of its overall turnover annually in software-related research and development and has contacts with security experts in various countries.

# E-government and e-health

**IT across the globe is helping people interact with their administrations while improving the quality of information in healthcare. Again, Vienna is one step ahead.**

## Modern administration for maximum citizens service

To exchange information between citizens and the city's relevant service point no longer requires a trip to the authorities but a mere mouseclick or a swipe on your touchpad. Vienna has driven a development that many municipalities and national administrations across Europe are seeking to copy. Quality of service creates new needs and new needs create new qualities. Vienna City Administration does not shy away from its responsibility to stay fit for the times.

### Top EU rankings for e-government

Vienna actively exploits the growth potential derived from various European initiatives. It also consistently implements its own innovative strategies to ensure better communication with citizens through open data (access to communal information systems) and e-government (the very best of data management). Active city administrations must involve their citizens in administrative processes. Hospital operators the size of Vienna have a duty to continuously improve their health system and e-healthcare will come to play a major role in this. Vienna has many resources of its own but also relies on external suppliers from a highly developed sector.

Incidentally, the European Data Innovator Award (EDI Award) 2014 went to the City of Vienna and its Open Government competence centre. Outstanding activities and visions for open government and open data in Vienna, Austria, the D-A-CH region (Germany, Austria, Switzerland) and beyond were highly acknowledged.

### Putting an end to urban dwellers' worries: the parking app

The iPhone app Parken Wien (parking in Vienna) uses open data to automatically register your current location to let you know if you are in a short-term parking zone and if parking fees apply at the time you are accessing the app. Parking zones subject to charges are shown in red and charge-free ones in green on your display. You can also buy tickets for short-term parking through the app. Validity and maximum stay are displayed, chargeable and charge-free parking zones are updated live so you always have the different parking terms for the different zones at the tip of your fingers. All garages, motorcycle parking, disabled parking and points of sale for short-term parking tickets are indicated by distance on a city map.

### E-health, a challenge for smart cities

Several IT companies in Vienna, both smaller and bigger, have chosen to make public healthcare their business. Vienna being the largest city in the country takes on a leading role when it comes to implementing the goals set out at national level.

Many of the IT solutions for administration, new diagnose and therapy methods required by public healthcare, hospitals, general practitioners and pharmacies were developed right here in Vienna. Big international IT players have sales and research branches here, such as IBM, Siemens Medical Solutions, Unisys, Philips Medical and Agfa HealthCare. Atos and Infineon have done much to establish the e-Card, a personalised citizen card valid across Austria.

Innovative Austrian companies too have become major players for niche products, such as the arm and leg prostheses produced by Otto Bock for customers worldwide. Otto Bock now runs a business with approximately 550 employees. A further 200 jobs are to be created in Vienna by 2020. There is a long list of developers in the health sector operating in Vienna, such as Askulapp, an IT enterprise specialised in mobile healthcare solutions, or Diagnosia, a software company committed to assisting medical experts and doctors in clinics and surgeries.

### Every place has its story

Story Hunter was developed for residents and tourists who want to discover the city beyond the typical tourist attractions and have a city map ready at hand. The app uses open data from the following information systems: Citybike, lost and found, multimedia stations, WIFI spots, sights, drinking fountains and public toilets (very important when you are new to a city!). Story Hunter is split into different categories and offers a selection of lesser known but very special places definitely worth a visit. There is scary stuff, literature, legends, restaurants, romantic places and much more to choose from. Every place has its own little story lined with background information that pops up once you are close enough to a particular place. Story Hunter won the Content Award 2013 for digital media productions, a much sought after annual prize awarded by Vienna Business Agency. Residents and visitors from Austria and abroad have come to appreciate this valuable information. Consistent use of open data ensures that information from various data sources is continuously expanded and interlinked, making the app so unfailingly attractive.



# Model solutions made in Vienna

**Many enterprises are drawing on the fact that they are located in Vienna. They are turning ideas and creative approaches into marketable solutions. Vienna as a smart city has contributed its share to their success.**

## Many started out small

For an industry like IT where market and technology add momentum on a regular basis and which is unfailingly tested by its own organic growth and local and international competition, having consistent and calculable entrepreneurial factors is an absolute must. Infrastructure, funding, facilities, a legal framework and reliable networks must be in place if ideas are to prosper and concepts are to become reality.

### Knowing about your customers is an ace up your sleeve

Approximately 200,000 satisfied customers from 1,600 companies worldwide swear by update Software AG's CRM solutions. Their loyalty over the years has put the Viennese enterprise at the forefront in the CRM market. Seated in downtown Vienna update Software AG has approximately 320 employees and in 2013 generated a turnover of 33 million Euros. It also operates branches in Germany, Switzerland, the Netherlands, France and Poland. The company's credo is that you have to know your customers' business if you want to promote their success. It means knowing their branch and offering solutions for each branch, from product development to customer service. There are preconfigured CRM solutions for individual requirements in the following branches: manufacturing, construction, construction sub-supply, pharmaceutical and medical engineering, financial services and consumer goods.

### Here is where I want to live!

zoomsquare is a property search engine that sifts the entire web for just that home you are looking for. zoomsquare regularly works through Google and the entire Austrian web. It marks your preferred location, relevant transport connections and access roads using the city's open data. zoomAlert notifies you of suitable offers as they turn up on the market. Important investors have recently joined this Viennese start-up. The market is promising it seems. Residential mobility constitutes a major element of urban quality of life. As families are planned and grow they need more space to live in. Space is one of the most vital resources for any dynamically growing city. The metropolitan area of Vienna is forecast to experience a major growth spurt in the coming years. Vienna is already the second largest German-speaking city in Europe. An app to support individual search criteria when looking for a home is a major contribution for a city always on the go.

### UBIMET – weather made in Vienna

UBIMET is an Austrian weather service and competence centre for meteorology and storm warnings started up in Vienna in 2004. Its founders are still the driving force behind the company's efforts to set new standards in meteorology. What began as a two-man team has since become one of the biggest and most rapidly growing private providers for meteorological services. UBIMET belongs to a global network of providers in more than 80 countries.

UBIMET has its own algorithms, top data quality and modelling allowing it to deliver precise and reliable weather forecasts and storm warnings in real time. Measuring data are used as a basis for models and individual forecasts. UBIMET currently draws on data from more than 17,000 WMO (World Meteorological Organization) weather stations worldwide which it then combines with instant data from lightning sensors, radars, measuring buoys and radiosondes for nowcasting and precise analyses. In other words UBIMET can tap into one of the biggest and best weather measuring networks worldwide. Data are saved on high-security servers and processed for regional and local forecasts. Many industries are dependent on reliable weather forecasts and through UBIMET's complex services are able to minimise costs and risks.

### Space of creativity: coworking spaces

Many legendary pioneers in the history of IT started out in garages or student apartments with little comfort and social support to count on. Things have changed for the better: coworking spaces provide the perfect setting for start-up companies to invent, programme and socialise and make their first products marketable. Vienna being a major European start-up capital has a booming coworking scene as well. Coworking spaces convince through affordable rent, flexible workplaces and contact opportunities. Vienna Business Agency is one of the providers.

These infrastructure models boast a number of advantages: they are often more affordable than single offices, they have all the technical office infrastructure in place, rental agreements are entered and terminated conveniently quickly. As a rule a distinction is made between permanent and flexible workplaces: the former are more expensive and come with added frills, the latter have new seating arrangements every day which makes them fully flexible. Cleaning, electricity, water, Internet, insurance (and sometimes printing costs) are usually included in the overheads. Being surrounded with like-minded people creates incentives and sometimes new connections too. The scene is booming.

## Research and development, funding from the city

Vienna is home to the oldest university in the German speaking area (founded in 1365). Naturally this has attracted a lot of scientific activities over the years and now IT also takes pride of place in the wide range of research, teaching and development.

### WWTF

WWTF, Vienna Science and Technology Fund, was established by the city and its partners as a funding tool for selected projects. More than 100 million Euros have been awarded in the past ten years, 160 projects made possible and 15 research groups brought to the city. Vienna as a science location is gaining strength it is plain to see.

The projects cover a wide range of subjects, including life sciences, mathematics, IT, humanities, social studies, cultural studies, as well as cognitive sciences. There is a two-tier submission process for calls, the second being an invitation for a more elaborate proposal.

### Vienna Business Agency

Vienna Business Agency supports numerous activities to boost business in Vienna. Both direct financial funding and technology infrastructure are available. One of its initiatives is the above-mentioned INiTS, a university service for start-ups dedicated to guiding business potentials rooted in science through their first steps towards entrepreneurship.

With its Smart ICT unit, the Vienna Business Agency offers comprehensive services for ICT businesses. It supports market and sales activities for businesses in Vienna, it offers guidance with marketing activities in Austria and abroad and helps to establish and maintain contacts among the business community in general. For an industry rising as rapidly as information technologies and communication this support has proved extremely useful at different stages and has in fact added value to Vienna as a business location.

### Universities and universities of applied sciences in Vienna

Vienna is home to nine public universities, six universities of applied sciences and five private universities for approximately 190,000 students altogether. There are a total of 33,000 employees 21,000 of whom in R&D.

The academic environment in Vienna with its thousands of students and teaching staff provides an endless source of experience and competence in all the relevant fields. Viennese businesses lap up know how and expertise to attract highly qualified job seekers on the labour market. The city's quality of life also stimulates university graduates to stay in the place of their training even where attractive international job offers are beckoning.

### Digital City

Digital City Vienna is an initiative started by IT companies and supported by the Vienna City Government. It aims to promote and strengthen the IT location Vienna as a European hot spot for companies, professionals, start-ups, and investors and to encourage careers and the industrial location. <http://digitalcity.wien/>

### For further information on ICT in Vienna visit:

Vienna Business Agency: [viennabusinessagency.at](http://viennabusinessagency.at)

Vienna Business Agency – Technology Services: [viennabusinessagency.at/consulting](http://viennabusinessagency.at/consulting)

Austrianstartups: [www.austrianstartups.com](http://www.austrianstartups.com)

Advantage Austria: [www.advantageaustria.org](http://www.advantageaustria.org)

Austrian Computer Society – OCG: [www.ocg.at/en](http://www.ocg.at/en)

Internet Service Providers Austria – ISPA: [www.ispa.at](http://www.ispa.at)

Secure Business Austria: [www.sba-research.org](http://www.sba-research.org)

VRVis Research Centre for Virtual Reality and Visualization: [www.vrvis.at](http://www.vrvis.at)

For further information on education, research or universities visit: [www.wien.gv.at/english/education/tertiary-education](http://www.wien.gv.at/english/education/tertiary-education)



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